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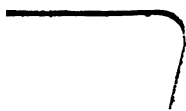
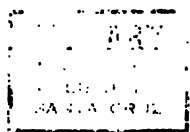
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REINDEER, DOGS, AND
SNOW-SHOES:

*A JOURNAL OF SIBERIAN TRAVEL AND
EXPLORATIONS*

MADE IN THE YEARS 1865, 1866, AND 1867.

BY RICHARD J. BUSH,
LATE OF THE RUSSO-AMERICAN TELEGRAPH EXPEDITION.

WITH ILLUSTRATIONS.



LONDON:
SAMPSON LOW, SON, AND MARSTON,
CROWN BUILDINGS, 188 FLEET STREET.

1871.

Entered according to Act of Congress, in the y
HARPER & BROTHERS,
In the Office of the Librarian of Congress, a

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B268

TO THE MEMBERS
OF THE
RUSSO - AMERICAN TELEGRAPH AND EXPLORING EXPEDITIONS
OF THE YEARS 1865, 1866, AND 1867,

This Journal is most respectfully Dedicated

BY

THE AUTHOR.



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P R E F A C E.

ABOUT four years have elapsed since the completion of the travels and explorations recorded in the following pages, and even at this late day it is not without great reluctance that the author ventures to lay before the public an account of them; not that he had deemed such a record unlikely to attract, through dearth of interesting matter, but from a lack of confidence in his ability to portray such matter in a readable, comprehensible, and entertaining manner. Nevertheless, in response to the earnest solicitations of numerous friends, he now launches this volume forth into the sea of literature, that has been nearly deluging the senses and drowning the patience of the public of late years, there to sink or swim as the Fates may decree.

The object of his travels, in connection with others, being merely to make preliminary surveys for the proposed route of the Russo-American telegraph line, he was unprovided with the necessary instruments and means of ascertaining accurately the locations of numerous points mentioned in the succeeding pages, expecting to fix them more definitely as the work progressed; therefore due allowance must be made for many inaccuracies.

By a perusal of this work, the reader will at once perceive that it is only intended to convey an idea of what the author himself saw, heard, and endured during his sojourn of nearly three years in these cold, desolate, and unwritten, yet interesting regions, large portions of which had never before been visited by white men. It has not been his aim

to produce a volume valuable in a scientific point of view ; but if, through this means, he contributes any thing to the small budget of knowledge already secured concerning those countries visited by him, or if, after a perusal of this journal, the reader shall feel compensated for the time consumed in reading it, its object will have been fully attained.

The illustrations may be relied upon for accuracy, having been mostly taken upon the spot by the author himself. The portraits of the natives of different tribes are all from life.

San Francisco, April, 1871.

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**REINDEER, DOGS, AND
SNOW-SHOES.**

REINDEER, DOGS, AND SNOW-SHOES.

CHAPTER I.

Object of the Expedition.—Route of Line.—Western Union Telegraphic Company.—Colonel Bulkley, Engineer-in-chief.—Arrival in San Francisco, and Organization of Exploring Parties.—Major Abasa.—Our Departure.—The Brig Olga.—Voyage across the Pacific.—Fogs.—Land-ho! —Volcanoes of Kamtchatka.—Preparations for going Ashore.—Kamtchatkan Coast.—Agreeable Surprise.—Avatcha Bay.—Mr. Flenger.—News from the World.—Petropaulovski.—Beautiful Harbor.—Fight with the Allies.—Population.—Early History.—At Anchor.—Esquimaux Dogs.—Impressions.—Native Politeness.—Kamtchadale Cossacks.—Native Costume.—Greek Church.—Bachelor Establishment.—Peachka.—Samovar.—Tea.—Captain Soutkovoi and the Ispravnik.—Behring's Monument.—Russian Hospitality.—Ladies Smoking.—Penates.—Prasnika.—Winter and Summer Amusements.—La Perouse's Monument.—Wild Flowers and Berries.—Battle-ground.—Volcanic Eruption.—Earthquakes.—Soldiers' Graves.—Magazine and Cossack Sentry.—Fishing Party.—Priests.—Dissipation.—Kamtchadal Boats.—Timidity.—American and English Residents.—Pleasures.—Life in Petropaulovski.

UNCERTAINTY loomed up before us as blank as the fog that enveloped our little brig on the second day after our exit through the Golden Gate. That our first destination was Petropaulovski, a small Russian settlement near the lower end of the peninsula of Kamtchatka, was all we knew. Upon what information he could acquire at this town of the vast territory lying beyond, Major Abasa, our chief, proposed to base his plans of future operations. Beyond, all was wrapped in a veil of uncertainty, through which we saw, or imagined we saw, phantoms of cold, starvation, and all the other dangers that inhabit an unexplored Arctic territory. The experiences of Kane, Hall, Franklin, and numerous others in a similar climate gave us a foreknowledge of what we might expect. But what man has endured, we thought, man could endure again; and as we were all young, stout, healthy, and

ambitious, and the enterprise one we thought worthy to chance one's life upon, we entered upon it resolved not to be alarmed at imaginary evils, but to push forward, accept whatever fate was in store for us, test the powers of these Polar denizens in actual encounters, and win, if possible; if not, succumb with the best possible grace. These were the motives that actuated most of us, and these were the feelings with which we embarked upon the enterprise.

"But what enterprise is he talking about?" I can imagine the reader saying. Simply this: we were going to explore a route for telegraphic communication between the Old World and the New—to connect Victoria, at the mouth of Frazer River, in British Columbia, with the Russian town of Nikolayefsk, at the mouth of the Amoor River, in Asia, *via* Behring Straits. Several thousand miles of unknown territory on both sides of Behring Sea had to be explored to test the practicability of the project; the extreme temperature of those northern climes had to be encountered, and savage tribes conciliated. For the accomplishment of these objects, ours was one of the first parties organized and embarked.

Owing to the indefatigable perseverance of Mr. P. McD. Collins, formerly commercial agent for the United States on the Amoor, the necessary charters had been obtained both from the Russian and English governments permitting the line to run through their territories. Our own government also did much for the furtherance of the undertaking. Mr. Collins afterward transferred his rights to the Western Union Telegraph Company of the United States, and they immediately took steps to carry out the enterprise.

Colonel Charles S. Bulkley, a well-known and energetic engineer, was appointed to the command of the expedition, and came immediately to San Francisco in the winter of '64 and '65 to organize expeditions and take the necessary steps for the prosecution of the work. Vessels were bought, together with thorough outfits in every thing essential.

Hundreds of men applied for permission to accompany the expedition, from whom the colonel selected the requisite number, always giving the preference to young men; "for," he said, "they can endure more; have greater perseverance; and besides, whatever honors or benefits shall accrue from a

completion of the work, I want the young men of the country to have."

Major Robert Kennicott, Director of the Chicago Academy of Natural Sciences, on account of his former experience in traveling in Northwestern America, was appointed to the command of an expedition to be landed on the American coast of Behring Sea, to penetrate eastward through Russian America, and connect with another party under Major Frank Pope, which was to be landed at Frazer River, thence to proceed northward through British Columbia.

Lieutenant C. L. Macrae, with a small party, was to be left at the mouth of the Anadyr River, on the Siberian side of Behring Sea, to ascend that river to a point where there was once a small Russian outpost called Anadyrsk, and then, if possible, to work his way southward to a native settlement called Kamanie, at the northeastern extremity of the Okhotsk Sea. Here it was expected that some of our party would meet him.

The remainder of the Siberian explorations, upward of two thousand miles, was intrusted to Major Abasa's immediate party, consisting of the major himself—a Russian gentleman of high standing and great intelligence, who was given the supreme command of all the Asiatic division of the line, Captains Jas. A. Mahood, George Kennan, and myself—four persons.

After repeated delays, on the 3d of July, 1865, the brig Olga, which had been chartered to convey our party to Kamtchatka, hoisted her anchor, and, being taken in tow by the Company's steamer George S. Wright, we glided rapidly out through the bay, giving one long, and, perhaps, last farewell glance at the hills and spires of San Francisco.

Numerous friends attended us outside the Heads, when the "good-by" was once more given, and, amid cheers and waving handkerchiefs, the hawser was dropped, flags dipped, and the Wright, turning on her course, soon vanished among the blue headlands of the Golden Gate, leaving us to pick our own way across the mighty deep.

No party ever started out better equipped, or with more comfortable accommodations than we. The Olga, though small, was a stanch vessel, and had been arranged for the

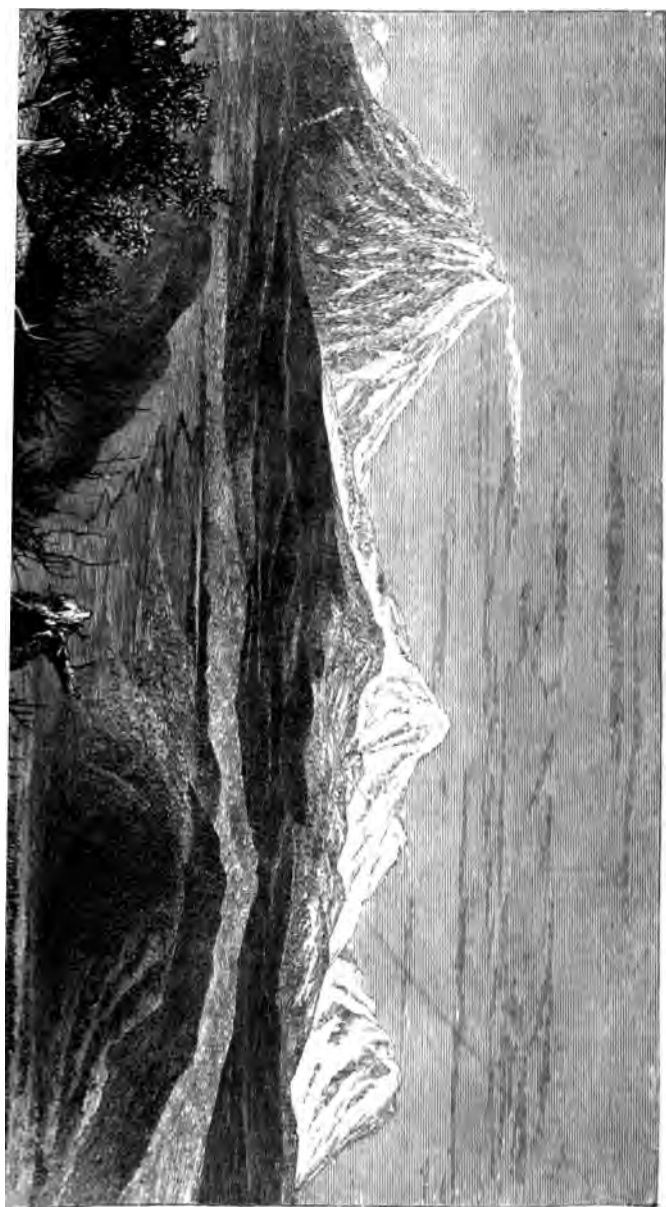
accommodation of passengers, the afterpart being partitioned off into a comfortable little cabin, around which were ranged eight berths. There being only four of us, we had abundant room, not only for ourselves, but for our baggage and extra stores; of the last we had an abundant supply, for which we were partly indebted to well-wishing friends at home, who had a thorough appreciation of their value in aiding to while away the tedium of a long sea voyage. It is hardly necessary to say that, with all these comforts, besides books and various games, the time passed very pleasantly and rapidly.

I will not enter into the details of our long voyage, but leave that to the imagination of the reader; suffice it to say that for forty-seven long days we continued on our westerly course, now laying to under close-reefed topsails; now gently heaving back and forth, becalmed on the bosom of the ocean; now dashing forward with a fine breeze off the quarter, and now contending with baffling head winds. Rains, fogs, and an occasional, though rare, fine day also helped to give variety. But during all this time we sighted neither land nor a sail.

Upon going on deck the morning of August 19th, we found ourselves enveloped in a thick fog, that hung over the ocean like a pall; so dense, in fact, that the forward watch was hardly discernible from the poop-deck. A good strong breeze was driving our tardy craft onward at the furious rate of seven knots an hour, and all bade fair for a speedy return to the longed-for shore. For several days past it had been impossible to get a "sight," and we were wholly ignorant of our exact whereabouts, but, by dead reckoning, we inferred our position to be about eighty miles from Petropaulovski.

Had this been the case, we reasonably hoped, before the sun should set, to catch a glimpse once more of *terra firma*. This expectation aroused unusual interest in the whole party, and our after-breakfast pipes were hardly lighted before all hands were assembled on deck, eagerly watching for the curtain to rise and disclose to view the first scene of the new drama in which we were to take so active a part.

Hours elapsed, and yet there were no indications of the fog lifting. By this time we had become somewhat reconciled to disappointment, and were about to retire to our usual rou-





tine of daily amusement, when the welcome cry of "Land ho!" from the forward part of the ship caused a spasmodic springing to feet. Ahead all was as dark as ever, and the utmost straining of our eyes could not detect the cause of this outcry, until at length, chancing to glance far above the point where we naturally expected land indications, several long light streaks, diverging as they approached the horizon, proclaimed the presence of some lofty peak, clad in perpetual snow. Soon another appeared farther to the north, and apparently higher than the first. We were allowed scarcely time to get bearings of the two before they were again hidden from view; but this was sufficient, as we were enabled to fix upon our location. Their relative positions, when compared with the chart, proclaimed the first to be Mount Villenchinski, upward of 7000 feet high, and the other Mount Avatcha, 11,554 feet in height, according to our guide-books.

This was the signal to commence preparations for going ashore. Trunks were overhauled to find clean white linen, to supplant the colored woolen shirts we had been wearing during the voyage, and boot-blackening—that most odious of petty duties—was sprung to with the greatest alacrity.

Even the sailors, who were not an over-industrious set of men, caught the infection, and were ere long applying the scrubbing-brush with surprising vigor. Nothing was slighted in their zeal, not even the pigs, whose hideous squeals, reaching to our cabin, caused us to seek the deck to ascertain the cause of the uproar. This was soon explained; the men had the two little fellows in a large tub of water, scrubbing and sousing them without mercy, though, rather than hurt one of them, they would have undergone almost any punishment. "Och! ye spalpeen, stop yer squalin; the gentlemen'll think yer bein murdered." "Will yees be asy, I tell yees? its all for yer own good." These, with various other characteristic speeches, caught at quiet intervals during the process, helped to make the scene all the more ludicrous, though it was a great relief to the ear when the operation was completed.

In the afternoon we were favored for a few minutes with a clear horizon, during which time I succeeded in getting an outline of the elevated portions of the coast comprised within a stretch of about sixty miles; but, with the approach of

darkness, the fog settled again, and we were obliged, though reluctantly, to turn on our course and head seaward, to leave off and on during the night. The following morning it was still dark, but at 5 A.M. the ship's prow was again turned toward shore, with the hope of finding clear sailing as the day advanced. In this, however, we were disappointed, for the farther we advanced the more dense the fog became; but about 11 o'clock we perceived that this effect was occasioned by the loom of the land, and shortly afterward the dim, black face of a cliff broke through the gloom about two miles distant. This was followed by another and another, being successive angles of the irregular coast-line, between which the retiring was lost in the mist.

Overhead the fog was even more dense than near the water, obscuring all the prominent landmarks by which we judge of our location; consequently, we were obliged to take our course blindly. Pretty soon a small, low island disclosed itself, which, by reference to the chart, we found to be "O Man's Island." We had struck the coast not more than four miles below the entrance to Avatcha Bay. Upon the northern shore of this bay Petropaulovski lies. Up to this time the appearance of the coast had fulfilled our expectations in relation to bleak, desolate Kamtchatka; but even those sterile cliffs were a welcome sight, and we longed to put foot upon shore. Imagine our astonishment and delight afterward, when suddenly the fog lifted, and, floating rapidly away, disclosed a scene of majestic wildness, and, in many respects, surpassingly beautiful. The long array of beetling cliffs was lighted up by a shower of most brilliant sunlight contrasting in bold relief the ragged yellow and gray projections with the darker hues of the shaded portions. The cliffs range from one hundred to four hundred feet in height and are crowned with beautiful green slopes, dotted with clusters of foliage, in the midst of which small rivulets trickle down to the brink of the precipice, and then bound off in silvery threads, ending in tassels of spray long before they reach the foaming surf below.

At the water's edge a succession of deep cavities have been worn by wave action, leaving ponderous masses of rock projecting overhead, ready to fall crashing into the sea at a

most any moment, while others are supported by massive arches or frail pillars, upon whose dimensions the dashing waves are gradually but surely encroaching. Many of these fragments have already fallen, and, being of every conceivable shape, their quaint, fantastic forms, jutting from the water, give the coast a very picturesque appearance. Some resemble castles, with massive wings and bastions attached, and jutting towers projecting over the water, while others are so tall, slight, and fragile in appearance as to create surprise at their not having long since been blown over. One, in particular, was so perfect a representation that, for some moments, all on board were deceived, thinking it was a ship under full sail approaching the bay.

These rocky pinnacles are the favorite resorts of great quantities of sea-birds of many varieties, being at times almost obscured by flocks of them circling about and alighting on their summits, while their bases were literally black with seals basking in the warm sunlight, now and then lazily tumbling over each other, or making awkward plunges from ragged projections into the sparkling surf below.

The surface of the water was unbroken except by the flapping wings of myriads of sea-parrots and ducks, that rose as we approached, and sailed off screaming toward more quiet nooks and coves under the overhanging cliffs, the glassy waves mirroring the enchanting scene with surprising distinctness.

This unexpected display, enlivened by the flapping of ducks, the screaming of startled sea-birds, the hoarse, unmelodious bellowings of seal, and the deep thunderings of the surf resounding from the black caverns under the cliffs, aroused in us all feelings of most exquisite delight, which, coupled with the knowledge that our voyage was about ended, fully repaid us for all the discomforts of the past forty-seven days.

The entrance to Avatcha Bay, at the narrowest point, is about one and a half miles wide. Approaching the bay, the high cliffs on both sides gradually diminish in altitude, and are succeeded by fresh green slopes and small sheltered bays. Upon the brink of a high promontory on the northern side of the entrance stands a small wooden light-house and sig-

nal-staff, lashed to the ground with stays to prevent being blown over, just beneath which three isolated chimneys of rock jut from the water, known as "The Three Brothers



"THE THREE BROTHERS."

Two or three miles farther, on the opposite shore, is "Bushka," or "Grandmother" rock, a peculiarly-shaped fragment. Just beyond this the Bay of Avatcha opens out into a fine large sheet about twenty miles in extent, bordered on the northern side by a range of hills, while on the south and west the country extends apparently level far inland.

A careful scrutiny of the shore with our glasses failed to reveal any traces of the town, and we were at a loss to know in what direction to proceed, when a whale-boat was discovered approaching our vessel from a line of bluffs on the right.

The dark skins, black hair, and coarse cloth garments of the rowers proclaimed them to be some of the semi-civilized natives of the country; but the helmsman, from his manner and appearance, together with the easy grace with which he reclined back on a thick pallet of bear-skins, and leisurely puffed at a fragrant Manilla, we knew to be either a foreigner or some Russian gentleman.

We were at a loss to know how to address him, when the words "What ship is that?" in good round English, left us no longer in doubt. The gentleman proved to be Mr. Flenger, one of the foreign fur merchants of the place, who, seeing the brig, had come out to meet her. Under his guidance, we headed for a steep, hilly promontory visible to the north, behind which the settlement of Petropaulovski lies.

His first inquiries were for news from the world, as it had been three years since a mail had arrived from St. Petersburg *via* Siberia, and the only information they had received during that time was from one or two vessels that call annually at the harbor. It was formerly customary to send a mail through by land from Europe once every winter, but this custom, it seems, had been stopped, and the arrival of a vessel—their only resource for obtaining news now—was hailed with great interest by all, and recorded among the remarkable occurrences in the annals of Petropaulovski.

As we approached shore we eagerly watched for the first indications of the town, but, though within rifle-shot of the rocks, no traces could be seen of the presence of any human habitation other than a few cows and dogs on the adjoining hill-sides. Presently the ship's course was changed, and, rounding the end of the promontory, we found ourselves suddenly confronted by a beautiful, snug little harbor, sheltered on three sides by the high, narrow promontory encircling it like an arm, and a range of lofty hills rising in an easy slope from the white beach to an elevation of about one thousand feet on the main shore. The already narrow entrance was reduced to a mere gateway by a long, low sand-spit jutting from the main shore, completely sheltering the little bay, which is at all times as smooth and placid as a mountain lake.

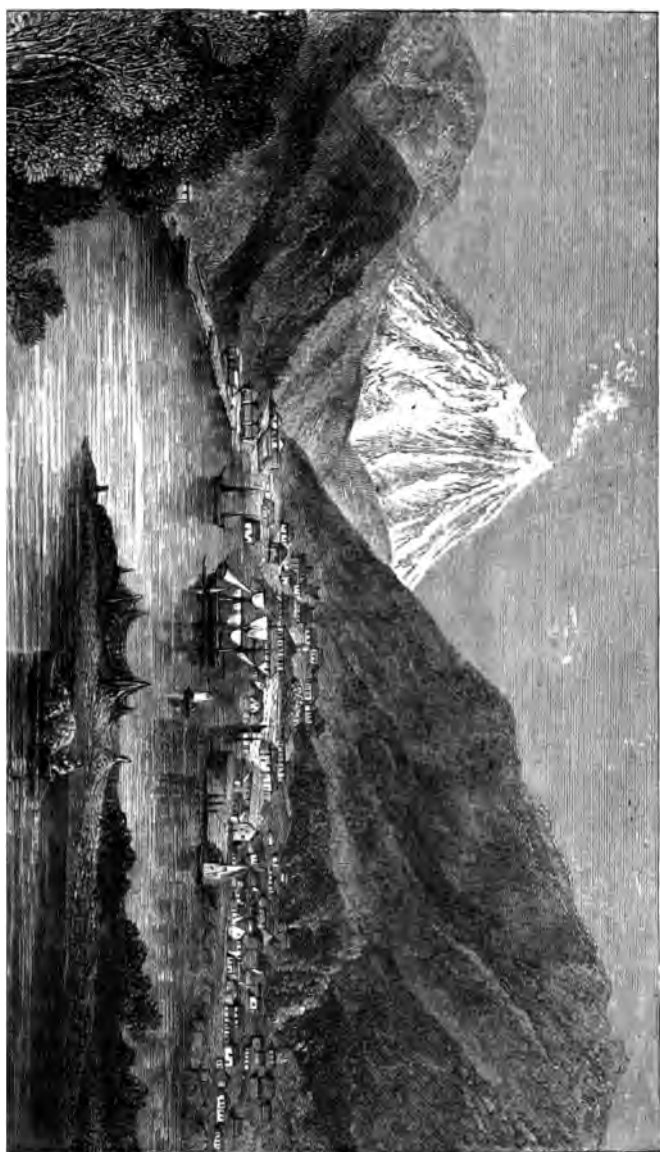
Upon the gradual slope bordering the bay on the north and west are grouped the low log-houses of Petropaulovski, sprinkled about without regard to regularity, in the midst of which stands most prominent a small, octagonal, red-roofed church, surmounted with a green turret. Most of the houses are covered with bark or thatched with straw, but a few—those occupied by the government officials and foreign merchants—are roofed with shingles painted red, which show in

glaring contrast against the fresh green hill-sides in the background. Back of the town, just over a low rise, lies a small valley, between the promontory and shore ridge, through which other and more distant ranges reveal themselves, capped, on a clear day, with the grand, lofty cone of Avatcha; but this beautiful feature of the landscape was obscured on the day of our arrival.

As we entered the harbor, upon either hand were the remains of several earth-works that had aided in the successful defense of the town against the allied fleet during the Crimean War; for, though on the very outskirts of civilization, and being a place the capture of which could not add one grain toward the ultimate success of the campaign, even this little Kamtchadal settlement had to be dragged into the contest; but she acquitted herself nobly, and forced the powerful fleet of her adversaries to retire after a lively bombardment and very spirited land engagement on the end of the promontory adjoining the main land. For their victory the Russians were mainly indebted to the natural advantages of their position, which is approachable only through the narrow entrance of the bay, and this was commanded not only by shore batteries, but by the guns of two men-of-war lying in the small harbor.

Petropaulovski at present contains not more than three hundred inhabitants, natives and all, but then it was much larger, being the principal Russian settlement on the Pacific. At the time of the engagement her population was about one thousand souls; but the following year, the port of Nikolayefsk being then founded, by orders from St. Petersburg the place was abandoned, and all the troops and stores, together with a large portion of the population, were removed to that place. This was effected only in time to escape another attack, as the allied squadron returned to try and retrieve their lost laurels. All the batteries were razed by them, and most of the buildings burned down, since which time the place has improved very little.

The history of Petropaulovski dates back to the year 1740, when magazines were established here by one Felagin, whom Behring sent to explore Avatcha Bay, preparatory to his explorations on the northwest coast of America. Its name is



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derived from the two vessels *St. Peter* and *St. Paul*, built at the town of Okhotsk, on the Okhotsk Sea, in the year 1739, and used by Behring in his voyages. From that time it gradually increased in size and importance up to the breaking out of hostilities already mentioned.

When we had obtained sufficient headway, the sails were clewed up, and, at a signal from the captain, down went the anchor, bringing up with a dull chug in the soft mud at the bottom of the bay. The rattling of the chain as it ran out awakened a thousand echoes among the surrounding hills, and called forth a prolonged howling and barking from hundreds of Esquimaux dogs, which sounded really melodious, softened by the echoes as they bounded and rebounded across the beautiful little bay.

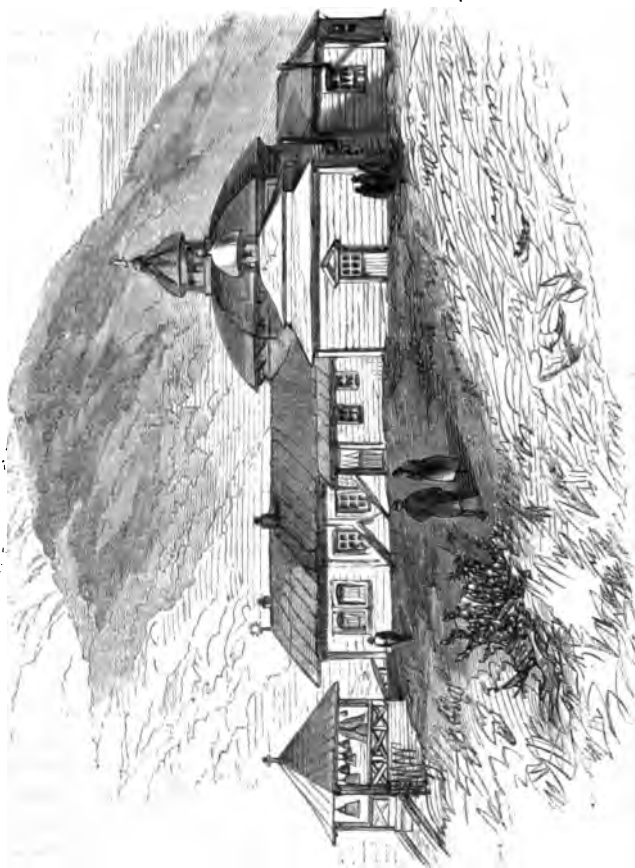
None but those who have for the first time found themselves transported to foreign lands, where every glance reveals strange and novel sights, and the ear is awakened by unfamiliar sounds and tongues, can realize the joy we experienced at this time. Every tree, shrub, and rock seemed clothed in a halo of peculiar interest, while the most commonplace objects and incidents were regarded and dwelt upon with especial relish.

No time was lost in lowering the boats, that we might pay our first visit to the settlement. Mr. Flenger kindly escorted us, and afterward insisted upon our accompanying him to his bachelor residence.

A row of wet, slippery steps answered the purpose of a landing, near which lay a miniature brig, mounting two guns, which, with seventeen Cossacks, compose the defense of the place. At the landing we were met by a troop of wild-looking little boys, each of whom, as we approached, raised his cap in the most polite manner to salute us. This was a feature of Kamtchadal life wholly unexpected, and it was a pleasure to return their salutations; such a custom might with propriety be introduced into countries pretending to much greater civilization. A little farther we encountered groups of Kamtchadals and half-breeds with coarse black hair and small eyes, curiously watching our movements, and anxious to ascertain the object of this remarkable, unlooked-for arrival. Among them, I was told, were a number of Cossacks,

but they so resembled the others in looks and dress that it was wholly impossible to distinguish them.

These natives have generally adopted cloth garments for summer wear, preferring them to their original skin clothing, but still cling to the use of seal-skin boots, which are not only cheaper for them, but are better suited to the life they lead—that of fishing along the shoal beach. In winter they, as well as all other residents of the country, make use of heavy fur outer garments.



CHURCH AT PETROPAULOVSKI.

The quaint little church, upon closer inspection, proved to be in a very dilapidated condition, as in fact did most of the dwellings. The entrance is in the end of a low, long wing, in which, suspended under a small shed wholly detached from the main building, is a chime of seven or eight bells, at which several men were pulling vigorously as we approached. At length, by winding and twisting about among various two-storied log buildings, we reached the street—a thoroughfare that might justly be entitled to that appellation, upon the side of which stands Mr. Flenger's house, a good-sized, well-built structure of not very inviting appearance external, but the internal arrangement and appearance far surpassed our expectations. His, being a counterpart of the other better houses in the place, will bear a brief description. The rooms were all high and comfortable, well papered and carpeted, and furnished with a view to ease more than elegance. Books and papers were strewn about in the greatest profusion (though the latter were of rather old date), which, with easels and easy-chairs, cigars, decanters, and many other minor essentials, proclaimed the place to be a model bachelor establishment.

The "samovar," or Russian tea-urn, stood upon a side-table, ready at a few moments' notice to yield delicious draughts of Siberian nectar. The tea we drank in this country was, without doubt, unsurpassable. One sip was sufficient to remove all previously acquired prejudice against the beverage, being so different from the article usually obtained in America. It is the universal drink among all classes, and is always kept in readiness for the visitor, being generally presented in large tumblers.

One feature of the houses in Petropaulovski is the "peachka," or large brick oven used for heating the different apartments; it is much like an ordinary bake-oven, but, before escaping up the chimney, the heat and smoke are conducted through innumerable flues and pipes winding about through the mass of masonry in such a manner as to get the whole thoroughly heated. When the fire dies out the chimney is closed, and the greater part of the heat is retained below. The "peachka" is usually built in the centre of the house, so as to present a surface to every apartment. One good fire

in the morning will generally supply heat sufficient to last all day.

Before returning to the vessel, we paid visits to Captain Soutkovoi, the captain of the port, and to the Ispravnik, or governor of the district of Kamtchatka. Captain Soutkovoi's residence is the largest and best in the place, being situated in a large yard, some distance back from the main street, and approached by an avenue of white poplars. The grounds are laid out in pleasant walks, and contain large numbers of cultivated flowers, among which we recognized several of our American favorites. A small brook is conducted through the place, and made to fall in artificial cascades. By the side of this stands an iron monument, erected to the memory of



BEHRING'S MONUMENT.

Captain Behring. Our reception by the captain and his pleasant wife was in full keeping with Russian hospitality, already proverbial; we were scarcely seated before the samovar was introduced, together with beverages of a stronger nature, and cigars; the latter we had a little delicacy in accepting until the madam set us an example by lighting a "papyrosa," or Russian cigarette, and beginning to smoke with the greatest

composure. Afterward we found smoking to be an almost universal custom among Siberian ladies, and, though a little prejudiced against the practice at first, we soon became accustomed to the sight.

The inside arrangement of the house was much the same as the one already described, though the tasteful disposition of the different pieces of furniture, together with various little articles of female workmanship, proclaimed the presence of one of the fair sex. A corner of each room was devoted to the "penates," being decked out with images of various saints, to which the family address their morning and evening devotions. Before each of these images were suspended small lamps or candles, which are always lighted on "prasniks," or church holidays—about half the days of the year.

One of the apartments contained a piano, and, being the largest room in town, the madam informed us was the place of holding their winter-evening balls and card-parties. From all I could learn, these people, though very isolated, and wholly dependent upon their own resources for amusement, lead quite a gay life. All the gentlemen keep their fancy teams of dogs, with which they make frequent winter excursions to the adjoining settlements, taking the ladies along with them, and at night, upon their return, they wind up with "vechourkas" at the captain's hall. During the short summer they find abundant amusement boating and fishing on the bay, gathering berries on the neighboring hill-sides, or taking horseback rides to the interior, besides occasional picnics at the many beautiful suburban resorts.

This, our first visit ashore, was one of pleasurable excitement; but, after returning once more to our snug little cabin on the Olga, to which we had become considerably attached during the long voyage, and where familiar objects once more greeted us, we experienced very great relief, even after so short an absence.

Upon the promontory on our left, near the site of one of the demolished Russian batteries, stands a monument erected to the memory of La Perouse, which we decided to visit the following day. Though the grass was deep and wet from a heavy dew, we were at an early hour ascending the steep clivity, and ere long reached the summit. This monu-

ment, upon a closer inspection, did not realize our expectations, and was hardly worthy to commemorate the fame of the great navigator. A more beautiful site could not have been chosen, however. The structure is of sheet-iron, perforated with bullet-holes supposed to be relics of the fight, and consists of a low column erected upon a pyramidal succession of steps, the whole being surmounted with a 32-pound shell in the cavity of which stands a small wooden cross.

We were surprised at finding upon the hill-side quantities of wild flowers, most prominent among which were wild roses, tiger lilies, and "Solomon's Seal," all of which seemed to thrive equally as well here as in our own country. Whortleberries and blackberries were also very abundant, and upon inquiry, we learned that raspberries, gooseberries, and cranberries likewise grew in the greatest profusion in some localities. Thick groves of small white birch and a few fir clothe the eminence, and afford shelter to quantities of birds.

Leaving the monument, we continued our jaunt westward along the ridge to the scene of the land engagement. From this point the view is sublime. On our left the ridge breaks off suddenly in a high ragged cliff, from the foot of which Avatcha Bay extends in a beautiful sheet for miles to the east, south, and west, bounded by the long, graceful curve of the distant shore. Beyond, the country is interspersed with groves of forest and winding streams, the latter sparkling in the sun, while the vision is limited by a line of blue hills. Directly in front of us, at the end of the ridge, lay a small oval-shaped lake, separated from the bay by a long, narrow sandspit, while at our right, nestled down in the valley and skirting the inner bay, was the town, and the adjoining slopes dotted with garden-patches.

The volcanoes, whose appearance we eagerly watched for, still refused to cast off their cloud mantles and reveal themselves. On a clear day, three lofty peaks are distinctly visible from this point. Avatcha, the highest of the three and the nearest, almost continually emits smoke. In the year 1861, the people of Petropaulovski were treated to a grand exhibition of an eruption from this peak. It continued for days without cessation, scattering ashes for miles over the surrounding country. These peaks are all of volcanic origin.

as their forms indicate, though at the present day, with one or two exceptions, they are dormant.

In this section earthquakes are not unfrequent, though they are rarely severe. In February, 1861, however, the whole of Southern Kamtchatka was badly shaken. Large fissures were opened throughout the country, and the quiet little town of Petropaulovski was threatened with demolishment. It resulted, however, in no more serious damage than shaking down most of the peachkas and chimneys, and the racking of door and window frames.

Descending from the hill, we passed two mounds of earth, crowned with rude wooden crosses bearing Russian inscriptions, beneath which lie the remains of the combatants slain during the engagement; and near by was another, having a low entrance, from which emerged, as we passed, a hermit-like creature, clad in filthy rags, and looking the very picture of destitution. The appearance of this man aroused our whole sympathy, while the appearance of his habitation completely puzzled us. We were much relieved, though, upon returning to town, to learn that the earth-mound was nothing more than a powder-magazine, and the individual a Cossack sentry. A more unsoldierly-looking soldier could hardly be imagined.

To return to town, we followed the beach at the foot of the cliffs outside of the promontory, upon which, rounding a point of rocks, we suddenly came upon a fishing-party seated around a large fire, singing and making merry over some suspicious-looking bottles. This, in itself, would have hardly attracted attention had we not discovered in their midst one of the long-haired, long-robed priests of the settlement, in any state but that of the sobriety becoming his calling. He had accompanied them to bless the water and insure them a successful haul, but, not being in a very spiritual mood, had probably adopted this method of becoming so. Judging from the countenances of all those we saw, the members of the priesthood are by no means a temperate set, and are likewise, according to rumor, greatly addicted to gaming. This, our first contact with them, produced feelings of perfect disgust. How their followers, humble and ignorant as they are, can repose any confidence in them whatever, is a mystery to

me. They make no show of concealing their dissipation, but at almost any time of the day, may be seen reeling toward the little church to read prayers.

We hoped that the extreme isolation of the place made it no criterion by which to judge of Russian church officials in general, but I am sorry to say that in no portion of Siberia visited by our parties afterward did they find a better state of affairs. I am told, however, that all sons of Church officials are considered sons of the Church, and are required whether or no, to devote their lives to its interests. If this be so, hypocrisy and carelessness are naturally to be expected. But, in spite of all this, they wield great influence over the ignorant and superstitious natives. I never saw a people more strict in the observance of all religious forms, the compliance with which, they think, is all that is essential to make them thorough Christians.

Near by the fishing-party, drawn up on the beach, were their canoes, like the "dug-outs" or hollowed logs used by our American Indians for navigating lakes and rivers. These are the only water-crafts used by the Kamtchadals, who are not very expert boatmen; and to insure safety when the water is rough, they lash two or more of them together, side by side, by binding light poles across the tops. Even thus secured, they rarely venture far from shore, but, rather than cross a small body of water, they will paddle three times the distance around the beach. This timidity is probably owing to their ignorance of the art of swimming, the water being too cold for them to learn. For bathing purposes they employ the Russian steam bath.

We were agreeably surprised at finding in Petropaulovsk a number of our own countrymen engaged in the fur trade together with two or three others, who spoke the English language, and were American in sentiment, if not by nationality. Two of these, Messrs. Peirce and Hunter, had resided in the country for a number of years, and had become so attached to it that they were no longer desirous of returning to America to reside. These gentlemen spared no pains to make our brief stay agreeable, and I am sure they succeeded fully. The time spent with them was one continued round of feasting and enjoyment, and when the day of departure

came it was not without great reluctance we turned our backs upon the beautiful little place and its hospitable inhabitants. Two of these gentlemen, Messrs. Dodd and Fronefield, afterward joined our expedition, and rendered very efficient service. The life led by these gentlemen is one of perfect ease and comfort. The natural beauty of the adjoining country would be, I should think, in itself sufficient to content one with a few years' sojourn. This, backed with extensive magazines, containing nearly all the luxuries we enjoy at home, together with the more hardy produce of the country, and a pleasant lucrative occupation, would, I should think, satisfy almost any one. 'Tis true their society is small and mainly of one kind—masculine, but their resources for other kinds of enjoyment are great, and they fully understand how to avail themselves of them.

CHAPTER II.

Major Abasa's Plans.—Country to be traversed.—Ho! for the Amoor.—Pony-ride.—Kamtchadal Horses and Equipment.—The Start.—Posh! Posh!—In Misery.—An Experiment.—Kamtchatka of our Expectations.—The Reality.—Fisheries.—Esquimaux Dogs and Crows.—At the Bay.—Hay-making.—Siberian Cows.—Bears and Wolves.—My little Steed.—The Adjutant.—Avatcha Volcano and Village.—By—Thunder!—A Siberian Exile.—Distrust.—Way Station.—Cockroaches.—Remedy.—Primitive Steam Bath.—Bathing Process.—Ouga.—Return.—Fire Alarm.—Equine Gymnastics.—My usual Fate.—Houtre.—Making a Ter.—Home again.—Last Day in Petropaulovski.—Fur Clothing.—Klankers.—Torbassa.—Chazee.—Malachis and Archaniks.—Furs of Kamtchatka.—“Yassak.”—Severe Penalty.—Fur Traders.—Mistaken Impression.—“Yankeeism.”—High Rates.—Thunder-storm.—Parting Visits.—Letters.—Farewell.

SINCE our arrival in Petropaulovski, every effort had been made to procure information concerning those portions of the country through which the proposed telegraph line would run, but thus far we had met with poor success.

The nearest part of the contemplated route was distant a thousand miles from Petropaulovski, and, to reach this point the whole extent of the peninsula of Kamtchatka had to be traversed—in itself quite an arduous undertaking—several months might be consumed in its accomplishment. Had it been earlier in the season, we could have reached Ghijig by sea, but at this time of the year it was not deemed safe to venture far into the northern portion of the Okhotsk Sea, therefore no alternative was left but to effect the journey over land, with horses and rafts in summer, and with dogs and reindeer at the commencement of winter, should we not reach our destination before winter set in. Nothing was to be feared from the natives until we should reach the country of the Koraks, a wild, barbarous, pagan tribe, inhabiting the northern portion of the peninsula. These people, according to information received at Petropaulovski, would have no hesitancy in killing us for plunder, and are a suspicious and treacherous class, without fear of either God or man. From them we naturally anticipated difficulty.

Once at Ghijgha, the starting-point, for about twelve hundred miles westward along the northern coast of the Okhotsk Sea to the town of Okhotsk, the country is well known to the Russians, though difficult to traverse, while the country northward from Ghijgha toward the former Russian outpost of Anadyrsk had also been traversed, but was very little known except to fur-hunters. It will be remembered that Lieutenant Macrae and party were to ascend the Anadyr River to this outpost to try and effect a junction with some of our party. Should our small band all proceed to Ghijgha by the way of Kamtchatka, the whole winter—consequently year—could be consumed in traversing those sections already mentioned; but there still remained an extent of twelve hundred miles of country almost wholly unknown or unexplored, which our line would have to pass through, lying along the western coast of the Okhotsk Sea, from the Amoor River northward to the town of Okhotsk. This section was so wild, mountainous, and inaccessible that no one, up to that time, had ever penetrated it; consequently, we could obtain no information whatever concerning it. How to include this section in our next winter's explorations was puzzling; but at length Major Macrae decided to divide his party, and to send Captain Mahood and myself by sea to the town of Nikolayefsk, on the Amoor, to explore northward to Okhotsk, while he and Captain Kennan would undertake the remainder.

The Olga fortunately had a cargo for Nikolayefsk, and, as we intended starting for that post immediately—August 8th—Mahood and I were to accompany her.

The day of our departure was close at hand, and, as we could probably not have another opportunity of visiting the suburban resorts of Petropaulovski, our friends suggested a pony-ride to a small settlement called Avatcha, distant about seven miles, at the lower end of Avatcha Bay. But there was some doubt of being able to procure the requisite number of horses. The country contains but few, and these being scattered inland, it was questionable whether or not they could be found.

At the appointed hour we assembled at the rendezvous on the street, where four of the horses awaited us. These Messrs. Flenger, Dodd, Mahood, and myself started on with,

leaving Kennan and another of our new friends, Mr. Boman, to follow when the others should come up. I was a little surprised at the appearance of the horses, and all the sympathy in my nature was aroused when I thought of the poor little things carrying full-grown, stout men up and down the hills that border the bay; but, being a poor rider, my pity for the ponies was somewhat mitigated by the consolation that, should I fall off, no great harm would result from it.

These horses are about four and a half feet high, stout and thick-set, having manes reaching below their knees, and long heavy tails that trail on the ground when they make the slightest descent. Owing to a lack of confidence in my riding abilities, I inquired for the most gentle animal, which one of the natives pointed out. The creature designated was the smallest of the troop—a mother accompanied by her colt which was almost as large as herself.

The saddle was like one of our saw-horses covered with several thicknesses of bear-skin, and loomed up above the little creature like the humps on the back of a dromedary. On one side was a stirrup, the deficiency on the other side being supplied with a rope loop almost large enough for a horse's head to walk through. Thus equipped for the jaunt, my gentle steed presented an appearance at which we all had to laugh notwithstanding an undercurrent of pity that toned down our mirth very much. Mounting was a very simple process, it being only necessary to balance on one leg and throw the other over the saddle, which was none too high to prevent one's feet from coming in contact with stumps or boulders. To obviate this difficulty, my companions had their stirrups drawn up to within a few inches of the backs of their horses, and, having concluded to do likewise, I also was soon perched upon the skins, my knees and shoulders nearly on a level.

When, at length, all were ready, the word was given, and off they started, all ahead but Dodd and the colt, who were waiting for my animal to move; but she stood perfectly regardless of any whistling or clicking I could master. My position was such that I could not kick her without danger of falling off, and having neither whip nor stick, I was at a loss to know what to do. At length Dodd approached, shaking so with laughter that the little beast under him showed

too, and told me to talk Russian to the animal; that she did not understand English; to say "Posholl! posholl!" After several ineffectual efforts the magic words were uttered, and their effect was truly magical.

Off she started on such a trot as to raise me nearly a foot with every step. Minutes were as ages. The agonies of an ordinary lifetime concentrated within a period of five minutes' duration could not have been more excruciating than the tortures of that first half mile. While in this dilemma, it occurred to me that I had frequently seen persons ride apparently hard-trotting animals with ease by rising in their stirrups. With one's feet so high, this would be not only a difficult, but dangerous experiment; but, thinking any thing preferable to what I was undergoing, I resolved to try the experiment.

A confused bouncing sensation succeeded, and the next moment I found myself prostrated on the mare's neck, clinging for dear life to her mane with both hands, the rope halter or bridle streaming in the air, and the little creature making desperate plunges to keep from tipping forward with the increased weight in that direction.

Appearances were now a secondary consideration, and, assuming as elevated a posture as the circumstances would admit of, I remained in that position until we caught up with the rest of the party, when a halt was ordered to allow me to recuperate.

I once heard a friend say that he considered the toothache one of the greatest blessings of humanity, on account of the perfect bliss one enjoys after the tooth is extracted. A trotting horse may, I think, be classed under the same head with propriety, for, of all the luxurious sensations it has been my good fortune to enjoy during life, that halt deserves to rank uppermost.

Cold, bleak, barren Kamtchatka—the abode of ravenous wolves, frozen lichens, withering tempests, and starved exiles—the least interesting and most God-forsaken country under the sun. The very exemplification of all that is dreary, desolate, and uninviting, as its tongue-tangling, brain-paralyzing name would indicate. In fact, the last portion of the globe upon which any being in his right mind should set foot!

Such were, pretty nearly, our notions of Kamtchatka before leaving home, and this was the kind of country our exploring parties expected to encounter. But how different was the reality! It was a calm, beautiful day, just after a refreshing summer shower, and the sunlight fairly glistened from the fresh green slopes that extended down to the water's edge. The whole country was besprinkled with wild flowers of the brightest hues, and hundreds of birds darted from the tall grass as we advanced, or flitted among the thick bushes that in places bordered our path. The sky was of the brightest blue, partially obscured by huge feathery masses of clouds that lazily drifted across the heavens, casting alternate light and shade upon the landscape. The only thing wanting to complete this most lovely prospect was a glimpse of those gems of Kamtchadal scenery—her volcanoes, since they were at this time obscured in a dense cloud. These, however, revealed themselves later in the day.

Our route led through the little valley back of the town, past the soldiers' graves at the end of the ridge, and thence along the sandspit separating the small lake from Avatcha Bay. Here our ponies were started up, much to my discomfort, and we dashed past some fisheries where were thousands of salmon suspended under bark and straw shelters, drying for the winter sustenance of the sled-dogs, these being their only food, one of which each dog is allowed daily. Dozens of crows were flying and cawing about the place, occasionally stealing a mouthful from some exposed fish, much to the disgust of a troop of hungry but handsome Esquimaux dogs, chained to the posts of the sheds below, and unable to get their portion.

Salmon is the principal article of food for both man and beast. In the absence of other diet, even the horses and cows subsist upon it, and appear to be well satisfied. As we passed to the leeward of the fisheries, the cause of our hurry made itself known in a very strong and decidedly unpleasant odor that smote upon our nostrils.

Leaving the "spit," our route lay over a low spur that made down to the water, thence skirting the shore of the beautiful bay, first up hill, then down, and over alternate stretches of smooth shell-beach, and jagged stones and boul-

ders that border the water's edge. For a large portion of the way rank grass and weeds reached far above our horses' backs, and frequently it was impossible to see more than the head and shoulders of the rider in advance.

This was the season for cutting hay, for which purpose the old-fashioned sickle is used, and at intervals along the route we came upon stacks of it, ready piled up to be hauled to town, as required for use in feeding the horses and cows during the winter months.

The cows we saw are as small in proportion as are the horses, but they make up in breadth for what they are deficient in height. Their milk is rich, excellent to drink, and also figures largely in the Kamtchadal bill of fare, from soups downward. It is made an ingredient in every composite dish. Each cow yields daily about five bottles, or a little over four quarts of milk, bottles being employed in its measurement instead of quart cups.

We found many traces of bears in the deep grass near the beach, left by them in their nightly excursions to the shore in search of "sea-cabbage." This marine plant constitutes almost their only food in spring, until salmon begin to ascend the streams to spawn; then Bruin subsists upon these fish, which he is very expert in hooking from the water with his long claws. His flesh is hardly palatable in these parts, on account of the strong fishy flavor.

Bears are very numerous throughout Kamtchatka, but I am told are less savage than in other portions of Eastern Siberia. Sometimes, after an unusually long winter, they go into the very streets of Petropaulovski and carry off cattle. Wolves are also very numerous, but are likewise not very dangerous except when in large packs.

Owing to the gentleness of my beast and the viciousness of her offspring, on the line of march it was generally my office to bring up the rear of the procession, the path being too narrow and winding to allow us to ride other than in Indian file. Once or twice, however, I ventured to go ahead, but the colt, or "adjutant," as the rest of the party called it, being very independent and willful, took no pains to keep up, and if any of those behind approached too nearly, they were warned off by a pair of small hoofs presented somewhat viciously for

their inspection. Now and then he would get lost in the tall grass, and set up a loud whinnying, when the mother would stand still for him to catch up, in spite of all the Russian I could master.

As we approached our destination—the settlement of Avatcha—we were greeted with one of the most magnificent sights I ever beheld. It was just as we turned a point of rocks at the foot of the bay. From the beach the country extended apparently level for miles inland, when it began to rise in a gentle slope, becoming more indistinct, and gradually swelling into hills as it receded from the shore. Each range was succeeded by another, a little higher and a little more indistinct, until the last was hardly discernible in the thick haze of distance, and was crowned by heavy masses of cloud that extended a number of degrees above the horizon. Far above this mass was the magnificent volcanic peak of Avatcha, over eleven thousand feet in height. Though distant thirty miles, its snowy summit, glittering in the sunlight, was so keenly cut against the bright azure of the sky that it did not appear to be a mile away. This peak is a perfect cone, and so steep that one constantly expects the huge masses of snow and ice to come dashing down its sides to the snow limit, and drop off into boundless space; below the snow-line, the bare distant mountain was blended with and lost in the sky and haze, leaving the snowy summit apparently suspended from the heavens by some invisible cord. Far to the south rose its noble rival, old Villenchinski, a spire of burnished silver. To the left, in the immediate foreground, in a graceful curve, extended the white beach, circling the head of the bay; and just before us, at the mouth of a small river that winds its way through the deep grass and clusters of white birches on the plain beyond, lay the small group of huts—picturesque in the distance—that compose the town of Avatcha. When the view first broke upon our vision, we all involuntarily stopped, awe-stricken by the grandeur and sublimity of the scene. Not a word was spoken for some minutes; but, with eyes and mouths open, each one stood, dreading to speak for fear of dispelling the vision. At length one of our party, who had been credited with the least amount of soul and susceptibility for the sublime, drew a long breath,



AVATOMA.

d in a prolonged, deep tone, uttered "By—thunder!" This poetical and unexpected outburst of enthusiasm produced general laugh, and recalled us to our senses, when we galloped into the village at a brisk rate, welcomed by the howling and barking of several hundred dogs.

Having fastened our steeds to a low wicker-work fence, made by weaving together small pliable sticks, we followed Flenger's guidance to the nearest and largest house,

the proprietor of which was standing in the door to receive us.

"That old man is an exile," whispered Dodd, as we approached the house. Being the first one of that numerous class we had met, I paid particular attention to his appearance, to try and detect some traces of that grief and suffering one would naturally expect to find in a person condemned to pass his life away from the land of his birth. He scrutinized those of us who were strangers to him very suspiciously, but I could not see that he appeared any less happy and contented than the remainder of the inhabitants. His name I did not learn, but he was an old Tartar, at the time of our visit seventy-six years of age, the last forty-six of which he had spent in exile. He never spoke of his early life, consequently but little was known of his past history other than that he had deserted from the Russian army and joined a band of robbers, among whom he had distinguished himself for desperation and cruelty.

He was a medium-sized man, with a small round head, though rather low forehead, over which his thin gray hair was allowed to fall, cut off squarely just above two deep-set, penetrating gray eyes; these were rather close to each other, however, and were shaded by thick, bushy brows. A short, snub, snuff-coated nose; enormous mouth, robbed by time of all its ornaments, with the exception of three small black snags in front; a long, scant gray beard hanging from beneath his chin, and a coarse, week-old mustache, completed his physiognomy. His costume was in full keeping, consisting of a very much soiled, ragged shirt, leathern trowsers tied tightly around the waist with a piece of rope, and much worn seal-skin boots.

Yet, notwithstanding his filthy, ragged appearance, he was considered one of the most prosperous among the lower class. I tried to get a sketch of our host, but he viewed the preparations with such evident distrust and dissatisfaction that I abandoned the effort. Probably my uniform and note-book made him suspicious, and suggested the possibility of my being a government spy or detective, seeking some clew by which to confiscate his dogs and cows for the public welfare.

When sledging or riding parties go from Petropaulovski,

they always make the old man's house a way-station, paying him a few "copeks" for its use, for which reason he keeps it much neater than the lower classes do generally. The house is built of logs, and chinked with moss and clay like all the others, and is heated by the "peachka," which is also used for cooking purposes; but, instead of loose reindeer skins, he had a piece of canvas neatly tacked down for a carpet; and on a small, rough-hewn, but clean table stood that indispensable article of furniture to a Russian household, the "samo-var," or tea-urn, already beginning to steam.

As we entered the house, I was very forcibly struck by hundreds of cockroaches that scampered across the floor and table, and ran along the crevices in the walls on all sides. These people brush them from their food and out of the way as carelessly as we do flies, and appear to make no effort whatever to kill them.

I at first attributed this leniency to some superstitious notion or belief associated with these insects, by which they were protected from wholesale slaughter, but was afterward told that the people had frequently tried to exterminate them, without success, however, since they are so numerous and breed so rapidly that it is considered time and trouble thrown away. They submit to the nuisance with the best possible grace until the advent of cold weather, when, for two or three days, all the doors and windows are thrown open. This freezes or stupefies the roaches, whose carcasses are then picked from all the cracks and crevices and destroyed, and afterward the whole house undergoes a thorough scrubbing and sweeping.

While prying about among the huts, hovels, and fisheries of the settlement with an eye for the curious, I thrust my head into a low, dark room in a dilapidated log cabin that stood apart from the rest of the houses, and was immediately struck with the dismalness of the place. A dungeon suggested itself to my mind at first; but what use they could make of a dungeon in a peaceable little settlement like this, where only two or three families resided, and they the most harmless kind of people, I could not imagine.

A small pane of glass was set snugly in the logs on one side of the room, which admitted so little light that I could

hardly distinguish an object. Gradually, as my eyes became accustomed to the darkness, I saw that the ceiling was very low, and it, together with the walls, was blackened and glossy, as if from smoke.

In one corner was a platform about five feet high, reached by three wide wooden steps roughly made, but smooth on the upper surfaces. In another corner was a low, rude oven made of loose cobble-stones piled carelessly over a kind of iron frame-work, beneath which were pieces of charred wood and near by were two old barrels partially filled with water.

My curiosity was thoroughly aroused, so I called the attention of my companions to the place, with a hope of getting some explanation. Dodd told us it was a primitive specimen of a Russian steam-bath. When a bath is about to be taken the barrels are filled with water, and the loose stones of the oven are thoroughly heated by a fire beneath them, after which some of them are thrown into one of the barrels for the purpose of heating the water contained in it. The water of the other barrel is allowed to remain cold for the final souse. The door of the room is then opened to allow the foul air, or "ouga," as the Russians call it, to escape, when the bather enters, perfectly stripped, and every thing is closed up as tightly as possible. To generate steam, cold water is then thrown upon the hot stones, and in a few moments the heat becomes almost unbearable, the upper platform, of course being the hottest. The wide steps are to enable the bather to enjoy different degrees of temperature.

After perspiring to his heart's content, he gives himself a thorough bathing in the hot water, winding up with the cold souse, and then leaves the bath and dresses at his leisure in a small anteroom adjoining. Frequently whole families—men, women, and children—bathe at the same time.

It is a very necessary precaution to allow the gases to escape from the room before bathing, as, not unfrequently, dangerous consequences result from their presence. These people are very fond of the steam-bath, and will endure a surprising amount of heat.

It was late when we left Petropaulovski, and not having much time in which to make the return trip before darkness would settle upon us, our stay at Avatcha was brief, and, ere

long, we were trending our way on the back path. The ride was most enjoyable, the atmosphere being in that delicious neutral state, neither cold nor warm, when every breath is a luscious draught, and one unconsciously laments his misfortune in not having been created with greater breathing capacity.

Neither was it without incident. Once we were startled by the cry of "A wolf! wolves!" which caused us all to look in the direction indicated. Revolvers were seized, and other preparations made for the encounter; but we soon perceived that it was a false alarm, the dreaded beasts being Kennan and Mr. Bollman coming out to meet us. As we joined them, Mr. Bollman was in the act of tightening his saddle, which had just turned with him, dropping him gently upon his head, but without injury. They too had been—not deceived, as they were undecided, but—much puzzled as to the nature of the animal that followed us, and had a hearty laugh as they saw the nose and ears of the "adjutant," just discernible above the tall grass, trying to find its mother, and making the woods ring with its loud whinnys.

These horses, though dwarfed physically, are by no means limited in sagacity, cunning, or trickishness. The one ridden by Mr. Flenger was a perfect prodigy in gymnastic feats. He was particularly fond of exhibiting his skill on the brinks of steep hills, where, regardless of the feelings of his rider, he delighted to indulge in the experiment of seeing how high he could kick without going entirely over. Even my "gentle mare" indulged herself once, but she was excusable on this occasion. In accordance with my usual fate, the day could not pass without my tumbling off, or being in some manner awkwardly dismounted. It was just after one of those trots over a stretch of beautiful upland, that terminated in a precipitous bank about fifty feet high, which we had to descend. Just after passing the brow of this declivity I felt my saddle beginning to slip, and, stopping my horse, attempted to dismount on the grade; but, during the trot, my foot and leg had passed through to the rope loop or stirrup, which fact I had overlooked, and, instead of landing on my feet, I found myself suspended by one leg over the mare's head, with the prospect of a descent of about thirty feet at a steep angle.

To relieve herself of the unpleasant weight, she began to kick, thereby disengaging my foot. I picked myself up at the bottom of the hill, none the worse, and, looking up, saw the creature standing in the same old place, from which she had witnessed my evolutions, apparently with the greatest satisfaction.

We made one more halt at a group of houses called Houtre, a pastoral settlement about three miles from town. Here quantities of rich milk were drunk by our party, in spite of earnest, frequent warnings that it would become butter before we could reach our destination; and, shortly afterward sore, tired, but, withal, well pleased with our days' ride, just as the last ray of the setting sun was quivering upon the very pinnacle of Old Avatcha, we galloped into Petropaulovski.

Friday, August 25th, being the last day Mahood and I were to spend in Petropaulovski, we devoted it to procuring fur for our winter journey; these can be purchased at a lower price here than on the Amoor, and are of a much finer quality. The most important article of fur costume for winter use is the "kuklanker," a large, shirt-like garment that reaches to the knees, made of two thicknesses of reindeer skin, with the fur on, and having a hood, to be worn over the head, attached at the neck. This hood is usually bordered with long soft dog or wolf fur, as a protection to the face in a cold wind or snow-storm. Some of these garments are made of the skins of unborn fawns, to obtain which the mother is killed and are so fine and beautiful that, at a short distance, they much resemble "doeskin" cloth. Such are quite expensive, being usually ornamented at the bottom with a broad border of finely-embroidered patterns in differently-colored silk, by the insertion of flowers or scroll-work figures of other colored reindeer skins. The whole is then bordered with a wide strip of beaver or otter, and sometimes even of sable skin which give the garment a very rich and elegant appearance.

Domestic reindeer vary in color from pure white to a dark brown, and some are beautifully spotted, so that almost any taste can be gratified in the selection of suits.

In addition to kuklankers, we each purchased "torbassas," "chazees," "malachis," etc. The "torbassas" are long f

boots, reaching to or above the knees, made of the legs of the deer, as the hair is shorter and closer, and the skin more durable than that of any other portion of the animal; they are generally soled with bear or seal skin, and are tied around the ankle and knee with long strips of leather to support them. "Chazees," or fur socks, are made of dog, reindeer, or wolf skin (the last being best), and are worn with the fur next the foot; they are gotten up wholly regardless of looks, much resembling a gouty foot heavily bandaged. "Malachis" are fur bonnets, shaped like an old woman's cap, intended to be worn under the hood, attached to the "kuklanker." These articles, with mittens, buckskin pants, and "archaniks," completed our costume.

"Archaniks" are not only useful, but ornamental; they are beautiful black tippets, made very ingeniously of the tails of Siberian squirrels, and are intended to be carried between the teeth, as a protection to the lower part of the face while facing a cold wind, in the same manner that the Greenlanders use fox's tails.

Kamtchatka furs are of the finest quality, particularly the sable, which is considered equal to, if not superior, to any produced in the whole Russian possessions. Ermine, river otter, silver-gray, black, and red foxes, besides many other varieties of fur-bearing animals, are also found here.

The annual "yassak," or taxes imposed by government upon the natives, are always collected in furs, amounting in value, I am told, to two roubles for each male individual between the ages of fifteen and fifty. In collecting this yassak, each person subject to taxation is required to furnish a sable skin, or other furs amounting to the same value, from which the collector selects as many of the best as are required to pay the tax assessed upon the community, taking them at about one half their market value. The remainder, to insure justice and impartiality, is then sold, and the proceeds divided equally among those who furnished the skins.

In this manner the finest furs generally fall into the hands of government, and are reserved for the private use of the royal family. At the time of our visit, large quantities of furs derived from this source were stored in the government magazines, awaiting transportation. Cossack sentries were

kept continually posted over them as a guard, though *one* would think there was little danger of their being molested, since, I am told, the penalty is death to steal from the government. (A pity that such a law could not be established and enforced in America.)

Notwithstanding this extreme punishment, but a short time before our arrival the magazine had been entered, and several thousand dollars' worth of furs extracted. These were afterward recovered, however, and the culprit had been detected and imprisoned, to be sent to Nikolayefsk for trial.



KAMTCHATKA SABLES.

Many persons labor under the impression that in Kamtchatka and Eastern Siberia, the source from which many of the most valuable furs are derived, these articles are to be obtained at very low prices, but in this they are much mistaken. The trade has been carried on for so long a time, and there has been so much competition in it, that the native hunters now fully appreciate the values of different skins, and demand prices accordingly. They have even progressed so far in "Yankeeism" as to resort to trickery, it being a very common ruse of theirs to hang poor, light-colored pelts, more particularly sable, up in the smoke, to give them a rich, dark hue. In this they have been detected, though, and now, in purchasing a skin, the trader always first applies it to his

brushes it with his handkerchief, and then blows it, over its quality and thickness.

We found worth from six to thirty dollars per skin, according to color and quality, and other furs in proportion to, among the merchants in Petropaulovski.

Just before our departure, Southern Kamtchatka was visited with a severe thunder-storm, the first for many years, the residents of the town stated.

We finished our purchases and laid in a good supply of "provisions" for the voyage, the remainder of the day was spent in making farewell calls upon our new friends, from whom we procured many letters to private parties on the mainland.

Armed with these, together with others to Admiral Komarov, recently appointed governor of the sea-coast of Eastern Siberia, and to Mr. Chase, United States Consular Agent at Nikolayefsk, we anticipated no difficulty in acquiring information, and obtaining all the assistance possible to further our explorations, and at 2 A.M., 26th, stepped aboard the "Olga" for the last time from Petropaulovski.

CHAPTER III.

Good-by.—Departure.—Parting Glimpses of Avatcha Bay and Surroundings.—Fog.—Currents.—Difficult Navigation.—Dead Reckoning.—Breaker ahead!—Narrow Escape.—Renewed Danger.—Preparations for Landing.—A Puff.—At Sea again.—Ushishir and Ketoy Islands.—Simushir.—Boussole Channel.—Provost Mountain.—Chirnoi Group and Volcanoes.—The Okhotsk.—Beautiful Weather.—Whales.—Saghalin Island.—La Prouse Straits.—Danger Rock.—Gale.—Japanese Islands.—Jesso.—Sho!—Gulf of Tartary.—Manchuria.—Mare's Tails and Mackerel Backs.—De Castries Bay.—Shipping Importance.—Contemplated Canal and Railway.—Alexandrofski.—Barracks.—Telegraphic Communication.—Cavettes.—Natural Bridge.—Hospitality.—Wire down.—Russian Officers.—Orders from St. Petersburg.—Inland Route.—Preparations for Journey.—Scarcity of Horses.—Queer Substitute.—Soldiers.—Mount Arbod.—Star.—Rain.—Bad Roads.—Beregovoi Hills.—Deck Passages, Shipwrecks, Chop Sea.—Lake Kidzi.—Tederovsk.—Soldier Station-keepers.—Gila.—Appearance and Dress.—Interior of Hut.—Deference.—Hospitality Unappreciative.

"GOOD-BY'S," if indulged in too often, are rather wearisome upon one's constitution; and even one of the nature of that we bade the last night in Petropaulovski is very exhausting in its effects, so much so that it was quite late the next morning before I found myself upon deck. Mahood was ahead of me, however, he having found it necessary to make one more trip ashore, to procure something forgotten the day before. Not unfrequently vessels anchored in the small bay have to wait some days for a favorable breeze by which to work around the promontory, but this morning every thing favored our departure, and, upon emerging from below decks, I was not surprised at finding the little brig slowly passing the sandspit, though the captain had got under way sooner than he had anticipated.

As she advanced the brig gathered headway, and Mahood had some difficulty overtaking us; but, just as we breathed "Babushka," his boat caught up, bringing Kennan, and Flenger also, who had come to bid us farewell once more. The adieu was passed, not without some feelings of emotion on my part at least. We each had long and difficult, if

dangerous tasks before us; months would elapse before their completion, and then it was questionable whether our little band would ever be reunited. Where and when, if at all, we were to meet again, the great Disposer alone knew.

The day was unexceptionable, warm and pleasant, and the atmosphere so pure and transparent that most distant objects loomed up with remarkable distinctness. Avatcha, Villenchinski, and Roselskoi stood forth in all their majesty, attired in most gorgeous array of blue and silver, cleaving the bright blue firmament with their towering crests. The grass-covered slopes of the adjoining shore, dotted with rich green clusters of foliage, were yet damp with the morning's dew, which the slanting rays of the sun converted into myriads of sparkling gems, all of which, together with every massive cliff and fantastic turret of rock, was reflected in the unruffled water with a distinctness that rivaled the reality. All nature seemed to have conspired in rendering this, our last glimpse at Avatcha Bay and its surroundings, unsurpassable in beauty. Even the water-fowl, as if by preconcerted arrangement, approached nearer to display their brilliant plumage, and seals, usually shy, raised their spotted heads out of the water within stone-throw of our craft, and with their large, soft eyes seemed to bid us Godspeed. But a gentle breeze, barely strong enough to swell our white sails, aided by a good tide, soon bore us beyond this enchanting scene, and, before many hours had elapsed, we were once more on the mighty deep, enveloped in one of the dense fog-banks so common to this coast.

We missed the presence of our former companions very much for some days, but by degrees became reconciled to the new order of things, and settled down to the old daily routine of amusements.

For days the fog continued without cessation, sometimes lighting up sufficiently at noon to allow the captain to get an observation, but we had to depend mainly upon the log-line and compass to judge of our whereabouts. Upon the Kamtchatkan coast this kind of navigation is very uncertain, owing to strong, trickish currents, which in a very short time sweep a vessel entirely out of her reckoning. To be on the safe side, we kept pretty well out at sea until we had cleared the lower end of Kamtchatka, when the brig was headed for

the uppermost passage through the Kurile Islands, to try and effect a passage into the Okhotsk Sea. Other and much better passes exist farther south, but sometimes vessels are delayed days and even weeks from getting through by unfavorable winds, or fogs, or calms. Fearing such a disaster, it was deemed advisable to avail ourselves of the earliest opportunity of reaching the sea.

Notwithstanding the continuance and density of the fog, we still clung to our course, hoping for clear sailing before reaching the islands, and trusting to a sharp lookout forward to warn us of the proximity of land should the fog still continue to oppose us.

Nothing of interest transpired during this part of the voyage up to Friday, August 29th, about noon of which day two or three of us were assembled upon deck watching for land indications. "There she blows!" cried the captain, referring to the spout of a whale; but we barely had time to glance in the direction indicated when that most ominous and thrilling of all cries to the mariner, "Breakers ahead!" came from the lookout. The dashing spray, barely discernible through the fog, had been mistaken by the captain for the blowing of a whale. In another minute we found ourselves girdled on three sides by the breakers, the angry surf splashing thirty feet into the air, but the land beyond was obscured by the fog. The warning cry had hardly been given before all was bustle and excitement.

Not a moment was to be lost. The ship was rushing on with good headway, and would soon be grinding in the jaws of the rock-fiends, without hope of extrication. A heavy swell was rolling in from seaward, and greatly diminished our chances for escape. But, thanks to a prompt execution of the captain's rapidly-given orders, the ship whirled on her course, and we soon had the gratification of knowing that the dreaded rocks were being slowly but surely left in the lurch.

When, at length, the danger was passed, all breathed more freely, and, as is frequently the case, joking succeeded anxiety. We indulged in a little romancing as to the life we would have led upon one of these cold, volcanic islands, and shipwrecked too. What thrilling narratives of our sufferings, narrow es

capas, etc., would be afterward published in the papers! But soon the joke dampened, for it was perceived that the wind was fast dying out, and still we were not more than two miles from the rocks. Our vessel for some time scarcely moved, and then stopped altogether, her sails hanging straight up and down the mast, except as she rolled and plunged over the heavy sea rollers, when, with a loud snapping, they would flap against the masts, each report serving as a disagreeable reminder of our utter helplessness. The action of the waves was undoubtedly carrying us toward the rocks, but so slowly that we hoped to catch a fresh breeze before reaching them. Ere many minutes had elapsed we were all startled at again hearing the distant roar of the breakers, and immediately afterward the fog appeared to lift, for we could see, though indistinctly, the white surf splashing into the air.

Now, for the first time, it was discovered that we were being rapidly swept by a strong current toward the reef, upon which, at the rate we were drifting, the vessel would be dashed in a half hour's time, unless favored by a fresh breeze. The deep sea lead was dropped with the hope of finding anchorage, but down, down it sank, and no bottom. Anxiously we watched the sails to try and detect the slightest puff of wind; the sailors began to whistle and scratch the mast, but every moment it grew more calm, if possible. At this time the destruction of the vessel appeared inevitable, and the mate received orders to clear the tackle for lowering the long-boat. At this I went below to gather together a few indispensable articles to be carried ashore should we be compelled to abandon the ship.

Mahood was already ahead of me. In our seal-skin bags we packed our furs and other articles most likely to be needed, not forgetting a good supply of rifle ammunition, by which, in all probability, we would have to subsist ourselves should we reach shore in safety. Having completed our preparations, the parcels were left at the foot of the cabin stairs, convenient for getting at, and we returned to deck.

The ship was now within rifle-shot of the rocks, heaving heavily over the waves, and yet not a breath of air stirring. The men stood at the tackle, ready to lower the boat at the command. Once more the lead was dropped, but no bottom.

Nearer and nearer we drifted, until it became evident that we must abandon the ship. Just as the captain was about to give the order to lower the boat, one of the sailors excitedly cried, "There's a puff!" Casting our eyes quickly upward, we saw the maintop-gallant-sail flutter for a moment, but it immediately straightened out again. The suspense was awful. In a moment this was succeeded by another and another puff, each a little heavier than the last. The boat was holding her own against the current. In an hour's time we had the gratification of knowing that several miles of ocean lay between us and the dreaded breakers.

The breeze continued until the next day, Wednesday, 12 o'clock, the fog disappearing in the mean while. As we sailed southward, we made out "Ushishir" and "Ketoy" Islands, both of which are small peaks rising abruptly from the water. At night Simusir Island appeared on the horizon. Before morning the wind again died away completely, leaving us becalmed abreast of the lower end of the island. Over twelve miles were made during the following twenty-four hours, but just at dark, Thursday, a light breeze sprung up which enabled us, with the advantage of daylight, to pass nearly through Boussole Channel: this channel is the most southerly and largest of the Kurile Straits, and lies between Simusir and the "Chirnoi" group. It is the dividing line between the Russian and Japanese possessions.

We were awakened early the following morning by our mate calling to us to come on deck "to see the volcano." The brig was yet lying in Boussole Channel. Thirty miles to the northward lay "Simusir," visible its whole length about twenty-seven miles, above which Provost Mountain loomed, disclosing near its summit the crater of an extinct volcano. Ten miles to the southwest was the "Chirnoi" group—small, rocky islands, surmounted by several high mountains, from three of which rolled dense volumes of steam and smoke, that lingered about their summits, and cast a pall-like shadow upon the water for miles around. As much hoped and expected there would be an eruption, the night came on and passed away without any farther demonstrations, and the next morning all land had faded from sight.

While crossing Okhotsk Sea to La Perouse Straits, for

eral days the weather was most beautiful, though the winds were light. Hardly a cloud appeared in the heavens. The sunsets were perfectly gorgeous, baffling description; and a bright, full moon, beaming from the cloudless sky upon the vast expanse of water, and reflected from our white sails upon the little craft, converted night into day. It was so warm that we could sit whole evenings upon deck without coats or hats. During the hours of sunlight we found abundant amusement shooting at sea-parrots and other fowl, and watching whales, upward of a hundred of which were counted in one day. These, however, belonged to a species of little value to whalers, as their yield of oil is very small.

On the evening of September 5th the island of Saghalin appeared on the horizon, toward the lower end of which we rapidly approached, favored with a strong breeze from the east. "mare's tails," "mackerel backs," and other indications of a strong wind were seen during the afternoon, and those aboard conversant with marine indications predicted a heavy gale before morning. As we were just about to enter La Perouse Strait, we sincerely hoped that it would blow favorably. This strait, lying between the islands of Saghalin and Jesso, is twenty-five miles in width at the narrowest point. Near its middle is a rock called "Dangerous Rock"—a very appropriate name, as vessels are apt to run upon it either in foggy weather or upon a dark night, unless forewarned of their proximity to it by the bellowing of seals, that infest it in large numbers.

At dark we took a southwesterly course, which could be kept for a distance of forty miles without danger, by which time we hoped to have daylight to enable us to pass through the Strait in safety. At midnight the gale struck us, fortunately from the east. We ran our course as long as we dared, but it soon became so dark that land could not have been distinguished at the shortest distance. It was then deemed advisable to run northward a few miles and "lay to" for daylight. I think it must have been very rough during the night, as twice my trunk upset, scattering the contents all over the cabin; and several times, looking from my berth, I saw our boots and the spittoons having a very spirited game of "puss in the corner."

At daylight the next morning we were howling past *Dagger Rock* under a close-reefed maintop-sail, the sea whit with foam, and the heavy waves, in close pursuit, threatening every instant to break over the quarter-deck and deluge the ship. The northern end of the island of *Jesso*, one of the Japanese group, lay close at hand a little to the southward distinctly visible from deck as we were passing; also several smaller ones, partially cultivated, though the inhabitants of this portion of these islands subsist mainly upon fish, I am told. At 4 o'clock P.M. the island of "*Totomosiri*" came in sight, and at night we lay becalmed on the "*Gulf of Tartary*," though the water was still quite rough, and a heavy chop sea breaking under the ship's counter.

The next day the cry of "*Sail-ho!*" was heard for the first time, and aroused all hands; for, though we had been at sea nearly sixty days, not a vessel had been sighted during the voyage up to this time. It was a brig bound evidently for "*Castries*" Bay or the *Amoor*, those being the only ports north of us, and, our destination being the same, as if by mutual agreement, a race was arranged between the two vessels.

Saturday, the 9th, was a perfectly beautiful day, though rather warm in the sun, the thermometer standing at $+95^{\circ}$.

As we advanced, the high coast of *Saghalin Island* on our side, and that of "*Manchuria*" to the westward, came in view, gradually approaching each other toward the north.

The *Manchuria* coast, nearest which we sailed, is high and very bold, the country back being densely wooded with species of fir, as it appeared from the vessel.

During the last day and a half of our voyage, which occupied fifteen days, the barometer had been falling very rapidly. The heavens portrayed other indications of a gale, and the one we had experienced in *La Perouse Strait* being fresh in our memory, we were more than glad when, at 6 P.M., September 10th, the light-house on the southerly point of *De Castries Bay* appeared. Shortly afterward, just as the wind was beginning to whistle through the rigging, we changed our course, passing between *Light-house Point* and another "*Dagger*" rock, that lies in the entrance of this bay, though covered at high water, and were soon lying quietly at anchor sheltered by a number of small wooded islands from the

storm that was raging outside. The strange brig dropped anchor just five minutes ahead of us.

De Castries Bay, or "Castries," as it is frequently called, is a small indenture in the coast of Manchuria, distant about one hundred and fifty miles below Nikolayefsk, which town is situated near the mouth of the Amoor River. It was discovered by La Perouse, the French navigator, in the year 1787, and named by him in honor of the Marquis De Castries, at one time Minister of Marine of France. Vessels bound for the Amoor always enter this port to procure pilots, or to await the arrival of one of the Russian corvettes from Nikolayefsk, which frequently steam down for the purpose of towing vessels to that port. This precaution is necessary on account of the difficult navigation of the upper end of the Gulf of Tartary, and of the "Liman," or Gulf of the Amoor, the latter, in particular, being very shoal, and the channels narrow, intricate, and shifting. It is not deemed safe for vessels to attempt the passage without favorable weather and good pilots, unless attended by one of the steamers.

By reference to the chart, it will be seen that the Amoor River, at a point distant about two hundred miles above its mouth, near the Russian town of Marinsk, is not more than fifty miles west of Castries Bay. From this point the river flows nearly due north parallel to the coast-line about one hundred and fifty miles, and then turns eastward to join the Liman.

For two thirds of the distance between Castries and Marinsk there is water communication by way of Lake Kidzi, a small sheet of water adjoining the Amoor River, and over the fifteen miles of land portage remaining a corduroy road has been constructed, leading over "Beregovoi Khrebel," a range of low hills forming the water-shed.

Owing to these natural advantages—the shortness of the portage from Castries to Lake Kidzi, and the accessibility of the good, though small bay and harbor—the Russians at one time strongly entertained the idea of building either a railroad or canal connecting the bay with the Amoor, thereby avoiding the shoals and other obstacles in the Liman; but, as yet, no further steps have been taken toward completing the work than to make some preliminary surveys, from which

one or both of the above projects are deemed perfectly feasible.

The bay itself is a very pretty little sheet of water, about two miles in extent, surmounted by low, densely-wooded hills and dotted with small islands, also wooded, which protect vessels anchored inside from easterly winds. At the time we dropped anchor the water was scarcely rippled, though on the other side in the gulf a strong gale was blowing.

The little harbor presented quite a lively appearance, there being five other vessels lying at anchor near us. Between these boats were continually passing back and forth. Just in front of us was the Russian settlement of Alexandrofsk, founded in the year 1853, built partly upon the newly-cleared slope of one of the adjacent hills, and partly upon a rocky projection extending into the bay, surrounded by abrupt cliffs and undermined at the base by the action of tides. This settlement is but little more than a small military post without fortifications. In addition to barracks for five hundred men and the government magazines, it contains only one or two stores and a telegraph station. From this point there is telegraphic communication with Nikolayefsk by the way of the Amoor River. Only a portion of the town could be seen from our ship's deck.

Our sails were hardly clewed up before several parties boarded us from shore and the other vessels, but no information could be obtained from them concerning the time of the arrival of the next corvette, consequently we were forced to wait until we could reach shore the next morning, and ascertain by telegraph, before deciding upon the next step to be taken. Should no corvette come within a day or two, we had decided to attempt the inland route.

As we were approaching shore the next morning, a very beautiful natural arch came into view, reaching in a graceful curve from the rocky projection to a tower of rock standing in the water, and having a span of about twenty-five feet. Its ragged sides, clothed with patches of brilliantly-colored mosses, and grass-covered summit, in which a half dozen gnarled, weather-scarred old firs had taken root, together with the tides boiling over hidden rocks and rolling back and forth beneath its curve—now rushing madly into the

deep cavities at the base of the cliff, and now sweeping back to rejoin their element—and the sweeping beach, distant green fields, and patches of blue sky that disclosed themselves to view beneath the span as we sailed by, afforded elements for a beautiful art study.

Close by was a long flight of wooden steps, by which we ascended from the beach to the plateau above, and thence, following a winding path through groves of firs for a few hundred yards, reached the store and residence of a firm of German merchants, Messrs. Esche & Company. The house was large and comfortable, and the site admirably chosen. From the verandas we had a charming view of the bay, islands, and shipping.

Our reception by the gentlemanly proprietors of this establishment was very cordial, and one of them kindly volunteered to accompany us to the telegraph station as interpreter. The station is distant nearly a mile from Mr. Esche's store. It is a newly-constructed, plain log building, situated on a gradual slope overlooking a portion of the bay, and surrounded by innumerable stumps, relics of the forest but recently cleared away. The whole aspect of the place was such as one might find in some of our own Western border towns.

Unfortunately, upon arriving at the telegraph station, we learned that the line was out of repair between Sofyevsk and Nikolayefsk, and as not unfrequently days elapse before it is put in working order again, we decided at once to take the inland route, and risk catching one of the Amoor steamers at Marinsk.

Several of the Russian officers located at this post joined us at the station, and offered every facility for the prosecution of our journey, at the same time conveying to us the welcome information that instructions had been received from St. Petersburg by commandants of posts in the regions to be traversed by our line for them to give us, or any of the officers of the expedition, whatever assistance might be required. The hearty co-operation of the Russians enabled us, later, to accomplish much more than would have been possible under other circumstances.

Having decided to start the following day, preparations

for the journey were at once commenced, and messengers ~~se~~ into the neighboring country to gather horses for the ride the lake. Provisions, blankets, and a few luxuries, consisting chiefly of cigars, were packed in convenient parcels for use, and our preparations completed, when we learned that only three horses could be obtained for the trip, and only two saddles were in the place. Under these circumstances, since the captain of the Olga had decided to accompany us, we were at a loss to know how to carry our supplies and baggage, but the commandant of the post relieved us of our embarrassment by kindly offering us three soldiers for the purpose, to carry them on foot to the lake, distant about twenty-five versts. We felt some reluctance in making beasts burden of men, but, for want of other transportation, gratefully accepted his novel offer.

These soldiers are not much more than drafted laborers sent to the Amoor to settle the country. I was informed that they are required to serve fifteen years for an annual salary of three roubles, the government supplying them with rations of brown bread, and occasionally a little tea. Their chief food is fish, which they are required to catch for themselves, but at Castries Bay they also have oysters: these quite large and very good, I was told.

The morning of the 12th of September did not dawn auspiciously for the commencement of our journey. Mount "Arbod,"* the barometer of the Alexandrofskians, was enveloped at its summit in a threatening cloud, a sure indication of bad weather, they say, and none had any hesitancy in predicting a wet ride for us to the lake. For this, however, we were well provided, having good rubber ponchos, and being also assured that by night we would reach Marinsk, on the Amoor and find good comfortable quarters, such discomforts and inconveniences as one day might produce did not deter us from making the start.

The poor fellows plodding along with our baggage would suffer most, but they started off ahead of us, as though such business was nothing new to them, and apparently glad

* Mount Arbod is a wooded peak 1500 feet high, lying just back of Alexandrofski. It serves as a landmark to vessels wishing to enter Cast Bay.

the opportunity of breaking in upon the usual monotony of their life at the Bay.

Our horses were much like those we saw in Kamtchatka—somewhat larger, if any thing, but their equipment was more complete and systematic, excepting the total absence of one saddle. Who would ride bare-back? was then the question. The captain readily volunteered, though “he didn’t go much on land navigation,” but he thought he could stand it for three hours, by which time we were told we would reach Tederovsk, the first lake station; and, should he get tired, we could change about during the trip.

About 7 o’clock we commenced our journey, following for a few minutes a narrow road, cut through the forest along a portion of the shore, which afforded a beautiful prospect of the Bay, and then dipped down into some low swamp land, traversed by the most dilapidated, wet, and slippery corduroy road I ever saw. By this time the heavens had opened their floodgates, and rain was falling in perfect torrents, making it impossible to keep dry even with rubbers. Our progress was necessarily slow on account of bad roads, and several times we had to dismount and lead our horses around through the swamp to avoid places where the road had been undermined, and the small logs of which it was composed misplaced or broken.

Soon we emerged from the swamp and began the ascent of the “Beregovoi Hills,” a densely wooded, gradual slope, hardly deserving the name of hills at this point, though.

The soil consisted of a thick, sticky, yellow clay, and on the hill-sides the road had been very much damaged by heavy rains, affording the worst kind of travel for either man or beast. We had passed the soldiers on the road shortly after starting, and a truly forlorn, dilapidated, water-soaked party they were. Riding we found disagreeable enough, but when contrasting the comforts of our own position with those of the soldiers, we felt we had reason to congratulate ourselves.

Our ride was slow and monotonous, occasionally relieved by the stumbling or slipping of a horse, or some of the captain’s droll, nautical criticisms of the situation. He expressed himself decidedly opposed to deck passages on land or sea, especially so when there is nothing to prevent you from fall-

ing overboard; a number of times he narrowly escaped being "shipwrecked" when his horse stumbled, and the continual slipping of his beast produced a "ground swell" that he thought would "stave in his counter, sure, before he could get into port."

The country traversed by this road is thickly wooded mostly with larch, but we also saw a few aspens, spruce, pine and birch-trees. The corduroy road extends nearly the whole distance to the lake, there being at intervals short stretches of hard road, over which we endeavored to make up for lost time by whipping up our horses, but, in spite of all we could do, six long and very wet hours rolled by before we caught a glimpse of the narrow, dismal-looking sheet of water known as Lake Kidzi, and set in a damp, gloomy framework of larch trees. It was undoubtedly a dreary-looking place, but we first saw it under most unfavorable circumstances.

The sheet at this point is about one mile in width, and the banks low and swampy, the only traces of man's presence being the rickety corduroy road, and a most dilapidated, tumble-down-looking hovel, built at the water's edge. This was "Tederovsk," the first station on the lake, but for several minutes we thought we had lost our road and wandered on to the fishing-hut of some dispirited, broken-down exile, who was anxious to get as far from the world and mankind as possible. No one responded to our shouts, and the solitary small door of the hut was bolted from the outside. Had not been for the vicious snapping and barking of a small cat that assailed our horses' heels as we rode up, we would have thought the place abandoned.

By this time all of us were perfectly wet and tired out, so much so that even the hovel was a welcome sight, and we had just resolved to take informal possession, when a small box-like boat, containing two men, was seen approaching from the distance, while two other beings approached along the water's edge. These last were evidently natives of the country, and, from their appearance, were objects of a good deal of interest and curiosity to us, though by no means prepossessing in their looks, or calculated to inspire one with admiration. How to classify them we did not know, except under the general head of Tartars.

From small patches of skin that were in a few places visible through the dirt in which they were clothed, we judged their complexion to be midway between those of the Chinese and the American Indians. Their features were decidedly Mongolian—almond-shaped eyes, flattish noses, and coarse black hair; but most prominent of all were their cheek-bones, which were exceedingly large, so much so as to completely obscure the rest of the face in profile view.

They were a filthy-looking pair, clad in dirty, greasy skin garments, with naked feet and legs, and their long, coarse, uncombed hair, that had once been braided, hung down their backs in queues. That of the man (for both sexes were represented) was arranged much like the "tail" of a Chinaman, in a single braid, with the exception that no part of his head was shaven. The woman wore two braids, or what had once been such, since her hair, as well as that of her husband, was a perfect mass of tangle, and becoming more so every moment through the energetic clawing and digging of several long, unwashed fingers.

We would have experienced some little difficulty in deciding which was the man and which the woman had it not been for a long-stemmed pipe, with amber mouth-piece and miniature brass bowl, which the former smoked, while his fair partner carried a number of fine, large, freshly-caught fish.

The pair were members of a tribe numbering about 8000 souls, called Gilaks, a branch of the Tungusians—so stated, though, as we afterward found, a very different people from the Tungusians whom we encountered in our journeys. The Gilaks were the original inhabitants of the country of the Lower Amoor at the time of the first visit of whites to that section, and for an unknown period previously.

By this time the two boatmen had paddled up, and drawn their small scow upon the beach. They proved to be Russian soldiers, and the keepers of the station; and, as one of them was a native of the Baltic provinces and familiar with German, we had no difficulty in conversing through the captain, who was himself of Teutonic origin.

Having turned our horses over to the soldiers, who fastened them beneath a small straw-thatched shelter close by, followed by the Gilaks and several chickens, we found our

corner was
a couple of stools.

As soon as she entered the apart-
out of deference to us, though in a
posted herself upon one of the beds,
self a little more decently, neglecting,
herself or comb her hair; but, poor
alterations she made in her appearan-
proceeding, since either one hand or t
ly employed answering the summons
ures, which, though invisible, were, to
means unfelt.

Shortly our hosts joined us, and one
bly offered us of his larder, thinking
after the long ride, as in fact we were
of the black, nondescript substance he
cient to appease our appetites tempor
ourselves on the plea that we did not
the least, and that our own supplies
pected. Often, during succeeding jour
avail ourselves of such fare, but, as ye
tiated into Siberian experiences suffice
preferred to nurse our appetites and av
own, even at the expense of a little inte
parts most affected by the absence of n

CHAPTER IV.

rsk.—Gloomy Prospects.—Route to Yevetevo Station.—Our Con-
 —Arrival of the Soldiers.—Off again.—Dismal.—Dangerous Po-
 Terra firma.—A Night Tramp along the Shores of the Lake.—
 aveling.—Darkness.—Exhaustion.—Wading the Lake.—Hope and
 ntment.—One more Effort.—The Signal.—The Boat.—Arrival
 ovo.—The Station.—Our Repast.—Cockroaches.—Appetites.—
 led Boatman.—Brick Tea.—Off for Vlademirsk.—The Scene.—
 rsk.—No Boat.—Russian Soldiers.—Obliging Officer.—The De-
 urge.—Admirable Traits.—Boshniak.—Marinsk.—Gilak Lotka.
 ommandant.—Contrast.—Mr. Rosenheim.—Disappointment.—A
 l.—Extrication.—Poor Accommodations.—Russian Hospitality.
 nt Males.—Brutality toward the Weaker Sex.—The Boat.—De-
 —The Amoor.—Gilaka.—Habitations.—Subsistence.—Salmon.—
 Rowing.—Scenery of the Amoor.

is delayed at Tederovsk by the non-arrival of the sol-
 sh our supplies and baggage, time passed tediously

The dreary, dingy little hovel, together with our
 increasing appetites, the gloomy weather outside,
 ar that our men might be so late in arriving as to
 te our spending the night upon the dirt floor of the
 eated a feeling of depression and *ennui* so strong as
 o succumb even to the cheering and consoling influ-
 our pipes and cigars.

ood it for three hours, at the end of which time, by
 good deal of persuading, our host produced a small,
 package of tea from some out-of-the-way crevice, and
 for us a liberal allowance of that beverage. An hour
 5 P.M., the rain fell in torrents, and night began to
 pidly over the cheerless landscape. It was six miles
 y water, to the next station, and, in answer to our
 , we found that the only way of reaching that point
 means of the miserable little box-like craft we had
 the lake. It was even questionable whether this
 s large enough to contain our party, to say nothing
 tra weight of baggage, and there was no means of
 ng the length of time likely to be consumed in mak-
 passage.

These discouraging circumstances had decided us to tarry over night, when the arrival of our baggage and prospect of more comfortable lodgings at Yevetevo, the next station, induced us to continue our journey, notwithstanding the rain and darkness.

The poor soldiers were entirely used up and saturated, a good draught of their favorite beverage, diluted alcohol, and liberal compensation in Russian roubles, completely revived their spirits, and their fatigues and discomforts were soon entirely forgotten. One of them, who spoke German, we decided to take with us as interpreter until another could be obtained.

A hasty but hearty lunch having been disposed of, but a few moments were consumed in transferring ourselves and baggage to the boat, and, ere long, we were being propelled at a snail's pace by a pair of rude paddles in the hands of one of the station-keepers toward the middle of the lake. A small sail, about four feet square, had been hoisted, but, there being no wind as yet, this did not add any to our speed.

Our boat was in itself quite a curiosity, and so poorly constructed that a very slight movement to one side or the other would well-nigh capsize her. For this reason we, each of us, were allotted our particular locations, and great care was served not to shift from them in the least. The boat was shallow, flat-bottomed, square-sided structure, made of birch boards, and so small that, when containing our party and baggage, with the boatman, her gunwales were not more than three inches above the water. Fortunately, the water was perfectly smooth, there being no wind, and, wishing to shorten the journey as much as possible, the craft was headed boldly for the middle of the lake.

Rain still fell thick and fast, the heavy black cloud cur overhead having the appearance of being inexhaustible, the lowering shadows of nightfall portended any thing but an agreeable trip. After having gone about two miles, we reached the middle of the lake, a light breeze sprang up from the north, rolling low waves toward our boat, every one of which dashed over her sides. Hats and every thing at hand were used in bailing, but to no effect. The water slackened gained upon us, and it became evident that if we continued

our course the boat would surely swamp. Now our only safety lay in reaching shore without delay, toward which the prow was turned, and in a few minutes we reached *terra firma*.

A short consultation being held, we resolved to continue our journey, but in so doing it would be necessary to lighten the boat. To effect this, the captain, interpreter, and myself volunteered to walk, picking our way as best we could along the swampy shore, while Mahood and the boatman proceeded with the boat and baggage. It was nearly dark, and, following the shore-line, about ten miles intervened between us and our destination; but we pushed on, little realizing the difficulty of the task before us. The low shore was very uneven, being cut up with small water-courses, forming innumerable hummocks, and strewn with half-buried logs, all of which were obscured by a rank growth of grass that reached above our shoulders in many places.

The rain still fell fast, and the tall grass through which we had to wade had become so wet, that before proceeding one hundred yards we were perfectly drenched, our very clothing hanging about us like so much lead, and greatly impeding our progress.

In spite of this inconvenience, and the logs and hummocks over which we were continually stumbling and plunging forward, we made tolerable headway for the first hour, skirting deep bays and indentures in the coast, and rounding point after point that jutted out into the water. There was no beach upon which to travel, but the swamp and bog reached away out into the waters of the lake.

Soon the difficult traveling and repeated falls began to tell upon us, and by the time we had accomplished half the distance we were so wearied that it was difficult to raise one foot after the other. The last vestige of daylight had entirely vanished, and night, clothed in her blackest robes, had enveloped all nature in her sable gown. To see our way was impossible. We could not distinguish one another within arm's reach; and only kept together by constantly calling and shouting. To add to the gloom, the rain began to fall still faster. A troop of blind men cast loose in a difficult, unknown country could hardly have been more helplessly situated.

At length, completely overcome with exhaustion, we found it necessary to keep together, and to assist one another in rising to his feet after falling, none of us having strength to get up without assistance. The thick grass now became so matted, and the bottom so uneven as to bar our farther progress altogether. At this stage, our only plan was to try wading in the lake, for which we headed, each holding the other by the hand. This was far preferable traveling to the other, since the bottom was more even, and we were already so saturated that the water was not objectionable. For another hour we managed to struggle forward, sometimes sinking to the waist in mud and water, and only being able to keep our course by noting the depth of the lake. Point after point was passed, each time with the expectation of catching a glimpse of the station lights ahead, but as often were our anxious expectations succeeded by disappointment. The journey seemed interminable, and our strength had dwindled down to mere spasmodic plunges. Finally it lighted up a little, and we were enabled to distinguish another black cape about a mile ahead of us, just beyond which we felt sure the station lay, since we had been traveling upward of four hours, and must certainly have accomplished nine miles of the journey.

Cheered by this hope, we exerted ourselves for this final stretch, and in three quarters of an hour's time reached the point, but beyond the same unbroken sheet of darkness confronted us.

We were too much exhausted to go farther, so threw ourselves down in the wet grass to spend the night, having neither matches nor dry wood for making a fire. Just then happening to think of my revolver, which I had managed to keep dry, in anticipation of meeting some of the bears that infest this region, and knowing that Mahood must have long since reached the station, I fired three shots in rapid succession as a signal of our whereabouts, hoping that he would hear them and send a boat to relieve us.

The last flash had hardly vanished, and the echoing report were scarcely smothered in the dingy forest across the lake when three distinct shots were heard in reply, and half an hour afterward the measured dip of oars reached our ears. At the end of another half hour the glare of torches at the

station came into view, and shortly afterward we were ushered by the station-keepers into a good, comfortable log building, containing three or four apartments, heated by huge peachkas. This was Yevetevo Station.

A palace could not have been more acceptable. The oven door was thrown wide open, disclosing a large, cracking fire inside, lighting up the rude walls of the apartment with cheerful flashes. Our wet clothing was shortly removed, and then suspended about the room to dry, while fresh, warm garments were extracted from our satchels to replace them, by which time the hospitable keeper had brushed the cockroaches from a rude table, and spread an array of brimming tea-cups, arranged systematically around a ten-pound loaf of brown bread, near which was an old-fashioned, gayly-figured china plate, containing about equal amounts of butter and be-smear'd cockroaches.

"Did we eat?" It would have done any one good to have seen us. Tea, bread, butter, and I don't know but the cockroaches too, were soon "things that were," and, had it not been for our consideration for the keeper, he would certainly have found himself bankrupt in the provision line before morning. Those china cups were drained and filled, and drained and filled—well, I will not say how many times, for fear of being discredited; but I know that when the repast was finished, I sat for some moments wrapped in perfect admiration and astonishment at my own capacity. Then came on pipes and tobacco. Would that some of those unappreciative, libelous individuals, who are continually decrying the use of tobacco, had been with us at this time. One whiff of the fragrant "weary man's comforter" would have sufficed to convince them of the error of their former notions, and I dare say that forever thereafter their tongues would have been silent on the subject of smoking.

The night was passed very comfortably on beds of dry hay spread on the floor, as we were in condition to enjoy the poorest accommodations. By daybreak all were astir, making preparations for the farther journey.

From this point to the next lake station—Vladimirsk—we were to take another and better boat and a new boatman, a very acceptable change, since the last evening's experience

had somewhat prejudiced us against foot journeys in this locality. A nice dish of fried trout and several cups of "brick" tea put us in perfect traveling trim, and by 6 A.M. we were once more on the way. We left the old boatman behind, grumbling, however.

In spite of the little service he and his miserable craft had rendered us, his demands for payment were exorbitant, but he had to content himself with the ten months' pay we handed him upon leaving.

"Brick tea," as it is called, constitutes almost the only beverage of these people, who are unable to afford better, and, though considered the most inferior quality, we found it very palatable. It consists of the small stems and coarser leaves of the tea-plant, which are first pulverized and then mixed with bullock's blood to the consistency of a thick paste, and afterward baked or dried in hard, brick-shaped cakes, from which it derives its name. It becomes very hard, and has to be shaved off in powder as required for use. In our hurry, we had neglected to bring tea with us from the brig.

The day was clear, mild, and surpassingly beautiful. Not a ripple disturbed the glassy surface of the lake, and the boundless forest of larch that hemmed in our vision stood as motionless as a forest on canvas. Nothing but our little craft, and an occasional hawk that plunged into the water after its prey, gave an appearance of life to the scene, until we had advanced a few miles and approached the northern bank of the lake, where several white storks and swans were seen, and shortly afterward, upon reaching a point where low mud banks succeeded the swampy shore, we started up hundreds of geese.

It was a sight to make the eye of a sportsman sparkle with enthusiasm, to say nothing of the numbers of glittering fish that, from time to time, shot from the placid surface of the lake, wriggling joyously for an instant in the warm sunlight, and then falling back with a splash, scattering miniature rainbows for feet around. It hardly seemed credible that this day and the previous one could have been the offspring of the same climate and country.

At 10 o'clock we arrived at the third station, Vladimirk. This, like the others, contained but one house, but this house

as much larger and more comfortable than either of the previous ones, containing accommodation for about fifty soldiers, who were stationed here at the time of our visit. None of them were about the place, however, and the ferryman was absent with his boat, leaving us no means of prosecuting our journey farther, since our last boatman could not be prevailed upon to go beyond his allotted distance.

The only other water-craft of any kind at the post was a large barge, drawn up high and dry on shore, and capable of carrying about thirty men. There was no wind for sailing, consequently we could make no use of this boat. About a mile down the shore of the lake we could hear the axes of the soldiers, who, our boatman told us, were getting out posts to raft to Marinsk. With the view of ascertaining when our boatman would return, Mahood and the captain, with the interpreter, started to find them, and did not return until two hours afterward. The ferryman had gone to Marinsk, and might not return for two days, but the officer in command kindly offered us the use of the barge, and furnished nine men to row her, and by 1 o'clock we were once more under way, though making slow progress with the clumsy craft. The stern of the boat was a large square platform, reaching out over the sides for the convenience of the helmsman in handling the awkward rudder, though in rowing no such device was required. We were hardly under way before Mahood and the captain lay on this, wrapped in their blankets and lost in deep sleep. I found it sufficiently comfortable to recline back and enjoy the varying scene through lights of smoke from a good cigar—now watching the mischievous pranks of some of the soldiers, and now musing on the transformations this scene of wildness would in all probability undergo in future years. I tried to conceive of the forest being cut away, towns on this and that point of land, and every variety of craft plowing these waters—the shrill whistles of steamers or locomotives echoed back from fields of waving corn, where now a frowning wilderness holds sway; but invariably, just as the finishing touches were being given to the imaginary scene, some of the soldiers would "catch a crab" rowing, or something else transpire to obliterate it and divert my thoughts.

The soldiers were a jovial set, and appeared well satisfied with the lives allotted them by destiny. I could not but serve and admire a strong brotherly feeling that existed among them; not the slightest trace of selfishness could be detected in any of their actions, though there were abundant opportunities of showing it.

The pipe, when lighted, passed to all, and even two small turnips (grown in the neighborhood) were equally divided among the whole party. Upon parting at the station they were as affectionate as so many school misses would have been; had I not known better, I would have thought they were about to undergo a lifetime separation instead of for two or three days.

During this portion of our journey on the lake, which is about twenty-five miles in length, we passed a small rock island called Boshniak, which is held sacred by the Gila. To this place the "shamans" or "medicine-men" of the tribe periodically resort for the purpose of carrying on their pagan rites, which in many respects resemble the ceremonies of the American Indians.

About 5 o'clock we rounded a long point making out into the lake, and immediately afterward the town of Marik came into view, situated upon a low bluff upon the right shore. This town was established by Captain Nevilskoi, in the year 1851, as a trading-post for the Russian American Company, and afterward became of considerable importance as a military post on account of its proximity to De Castor Bay. At first it was subject to invasions from the Chinese and as a defense a number of earth-works were erected, but these are now no longer used, though a battalion of infantry occupies the town.

The houses are all one-story log buildings, and are scattered for about a mile along the shore, presenting a very unimpressive appearance. The most prominent feature of the town is a small, neatly-designed and gayly-painted church, after an Oriental style of architecture, with domes and minarets: the building looked very pretty from the water, and there were also one or two very comfortable-looking residences, with handsomely-arranged gardens and graveled walks, that would have done credit to almost any place.

All varieties of small boats, from the life-boat to the Gilak "lotka" (canoe) were drawn up on the beach, in the midst of which lay a dirty, dingy-looking craft of much larger size, from which emerged a thin cloud of steam. This we rightly inferred to be one of the Amoor steamers; for, though unknown to us at the time, we were now upon one of the more unfrequented channels of the mighty Amoor.

Upon landing, we were guided to the residence of the commandant, his head-quarters being a very inferior log house, but, I am sorry to say, did not experience any undue amount of cordiality in the reception he gave us. For this we were unable to account; and it was in such glaring contrast with the open-handed hospitality extended toward us every where else we went, that it appeared all the more striking.

Shortly afterward we were introduced to Mr. Rosenheim, a resident merchant of the place, who insisted upon our abiding at his residence during our stay, at the same time volunteering all the assistance in his power to enable us to reach Nikolayefsk, since weeks might elapse before the arrival of any of the steamers destined for that place.

Two hundred miles of river navigation yet intervened between us and our destination. This we would have to make in an open boat; but then arose the difficulty of procuring a boat and rowers for so long a trip.

Our first thought was of the Gilaks; but, it being the fishing season, during which they lay in their winter supplies, we were informed that no price would induce them to accompany us.

Mr. Rosenheim had a large barge, which he willingly placed at our disposal, and, there being no other resource, we presented our letters and applied to the commandant for five soldiers as rowers, which were reluctantly furnished us, so that we were enabled to continue our journey the following day.

Such a thing as an inn is unknown in these towns, neither is there ever to be found much spare room, consequently the traveler generally has to put up with poor accommodations. Not unfrequently the host sacrifices his own comfort entirely to accommodate unexpected guests, as did Mr. Rosenheim; or, rather, he wished to turn his whole family out of bed to accommodate us, but to this we would not listen, preferring

rather to sleep on the floor of his library, where the night was passed most comfortably.

As we were making preparations for our departure the following morning, nearly all the inhabitants of Marinsk were assembled at the beach to see us off.

The men were out in full force, lazily lounging about and smoking, leaving the women to attend to the laborious duties not only of the house, but also to many of those duties which properly belong to the men, such as chopping wood and carrying heavy buckets of water from the river to their homes, the river supplying the place with the only water the inhabitants use.

Large arms and waists showed that the latter had for a long time performed these heavy tasks to the relief of their indolent lords, and it was painful to look at them; but when, a little later, we saw little girls with rounded shoulders, and pale, haggard, and care-worn countenances performing similar tasks, almost breaking their frail backs under heavy burdens, before the very eyes of the masculine brutes seated about, it appeared outrageous and criminal. Long intercourse with the heathen Gilaks had imbued the whites with some of their brutal customs.

Mr. Rosenheim's boat was well fitted for our purpose; in fact, we could hardly have been better suited, as we were to be favored with a good current during the voyage, though for awkwardness of construction and unwieldiness the craft could hardly have been surpassed. Her chief excellence lay in her size, being about twenty-five feet long and six wide, and affording not only abundant room for sitting and storing our baggage, but also for sleeping.

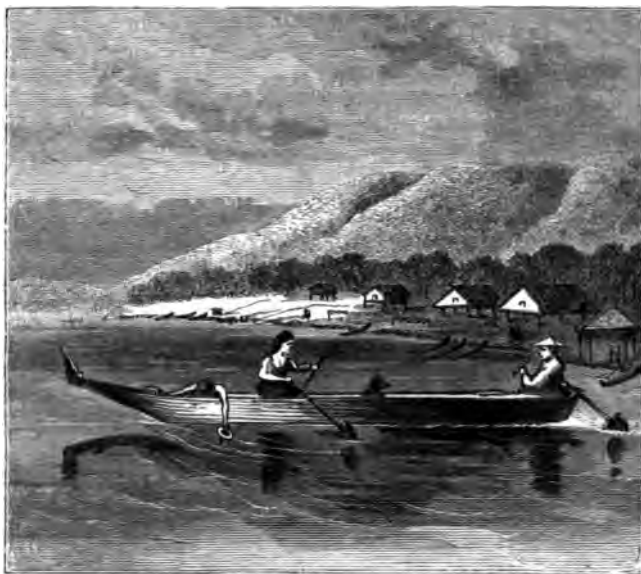
The afterpart had been partitioned off crosswise for conveying goods. One of these spaces we filled with fresh hay upon which to sleep, as we anticipated drifting during nights; and having provided one or two seats for the rowers, which were wanting, and procured a small mast for a sail improvised from two rubber blankets, we pushed from shore, amid a parting cheer from our new friends. A few lusty pulls with the clumsy oars carried us to the middle of the stream, when, striking the current and catching a breeze, the rubbers filled, and soon the last vestige of Marinsk was lost to view.

The Amoor was first discovered by the Russians in 1843. Among the Chinese we find records of the people inhabiting this section which date as far back as 1100 B.C. Probably as early as that date, or not much later, they also had a knowledge of the river. Having a length of more than 2400 miles, 1500 of which is navigable for steamers, and, together with its tributaries, draining 766,000 square miles of country, the Amoor deservedly ranks as one of the greatest rivers of Asia. It affords nearly all varieties of climate and soil. This stream is said to be the only one upon earth upon whose banks animals indigenous to the arctic and torrid zones meet, for, strange as the fact may seem, here the reindeer becomes a prey to the Bengal tiger, and the wild boar and badger range in the same latitudes with the Polar hare and glutton.

The river at this point is nearly a mile in width, and flows through extensive plains of meadow-land burdened with a rank growth of tall grass, beyond which, on either hand, in the distance, faint blue hills limit the vision. Patches of woodland dot the plains, and, in many places, extend to the river-bank, where, beneath the thick clusters of foliage, the busy though filthy Gilaks erect their picturesque habitations near the sandy beach. One of these we came upon shortly after leaving Marinsk. In front of each house, upon the beach, were drawn up their odd-shaped canoes, with elevated, fancifully-carved prows, and all along the shores we could see the bare-legged natives toiling at their long seines, and strewing the banks with hundreds of fine salmon, that glittered in the sunlight like heaps of silver. These fish are afterward split, and suspended on light poles under bark or straw-covered shelters to dry, where they remain until required for use, they being here, as in Kamtchatka, intended for the sustenance of both men and dogs during the long winter months. Fish and berries, with the bark and roots of various trees, constitute almost the only food of the inhabitants, and, though many of the more hardy vegetables could be had at the expense of a little toil, they content themselves with the food that Nature showers upon them.

The river at certain seasons of the year is literally alive with salmon, and so little effort is required to capture them

that they are considered almost valueless. Fish that would adorn banquets in many places are here thrown to the dogs by hundreds.



GILAK LOTKA AND VILLAGE.

Now and then we encountered "lotkas," or canoes, gliding from shore to shore, almost invariably propelled by the women, who handled the short carved paddles with a skill and grace really to be admired. They use the paddles much as we do oars, but make the strokes alternately, allowing one to trail along the side of the craft while the stroke is being made with the other. The men display equally as great skill in the management of the boat, though their duty is comparatively light, being simply to sit in the stern of the craft and guide it with a light paddle, in the mean while smoking the long-stemmed pipes with small brass bowls and enormous amber mouth-pieces.

Once fairly under way, sweeping rapidly forward toward the sea with the vast volume of waters, we resigned ourselves to the will of the elements, and settled back upon our benches.

mattress to a full and quiet enjoyment of the ever-varying panorama of the shores. The day was unsurpassable, and our craft, clumsy though she was, aided by a four-knot current and a strong, though agreeably-tempered breeze, glided so swiftly forward that we barely had time to examine the features disclosed by the flight of one bend before others were ushered upon our view, each, if possible, surpassing the last in beauty. Islands, rocks, villages, forests, and plains all swept by in panoramic rotation, radiant in the warm sunlight, and the majestic stream gleamed in the reflected rays like a mass of liquid silver, upon the bosom of which our boat shot forward, impelled by the eagerness of the waters, which, though nurtured in a hundred different climes, here unite their strength for the accomplishment of their one sole purpose—to rejoin the mother element.

These scenes we enjoyed with as little expense of comfort as would have been required to witness the same on canvas in one of our best-arranged home opera-houses.

CHAPTER V.

Kada. — Irkoutsk. — Post-station. — Horses, Cows, etc. — Freshets. — Old Pole's Misfortune. — Improvidence. — Neatness. — American Appetites. — A Passenger. — Primitive Plow, Anchors, etc. — Departure. — Perfection of Traveling. — Summer Eve on the Amoor. — Our Soldier Boatmen. — Music. — Reticent Soldier. — Mystery solved. — Storm. — Lightning and Gale. — Darkness. — Search for Land. — Unpleasant Prospects. — Shelter. — Fishing Camp. — Unwelcome Sight. — Spirits at Zero. — The Hut. — Russian Hospitality again. — A commendable Trait. — A Night's Experience. — The Fat Captain. — Poor Mahood. — Indignation. — Off again. — Scenery. — Gilak Hats. — Mikhaelofski. — Highlands. — Gilaks Fishing. — Tartar Monuments, etc. — Gilak Settlement. — Camp-fire. — Gilak Endurance. — Clothing. — Superstitions. — Religion. — Shamans. — Funeral Rites. — Barbarity. — Murder and Punishment. — Weapons. — Habitations. — Good Natures. — Curiosity. — Invoking the Gods. — Drifting. — Drowsy Crew. — On Shore. — Gilak Tableaux. — Storks. — Grampuses. — Steamer. — Shipping. — Nikolayefsk. — Seines and Traps.

OWING to repairs necessary to the boat, our departure from Marinsk had been delayed until the hour of 10 A.M., since which time the beautiful and ever-varying landscape, together with the consciousness of our position and whereabouts, had so occupied our thoughts and attention as to make us oblivious to the passing hours.

At 1 o'clock we sailed by the small Russian settlement of Kada, twenty-five versts below Marinsk, where we were strongly tempted to land and try to appease our appetites; but the glowing description given us by our latest friends of the advantages possessed by Irkoutsk (farther down) as a place for supplying the wants of the hungry traveler, induced us to martyrize ourselves for a while longer in anticipation of reaching that point.

We would gladly have avoided this disagreeable episode of the morning's journey—hunger—and lent our entire thoughts to *outside* matters, but found the outer and inner man too closely allied to admit of an enjoyment of the one unalloyed by the cravings of the other; consequently, our approach to Irkoutsk after a six hours' sail was hailed with joy.

From the river we could see no trace of the settlement, and

undoubtedly have passed it had we attempted the journey, as we at one time thought of doing. Under the care of one of our soldiers, who happened to be familiar with his portion of the river, we left the main stream altogether, entering a narrow channel-way, for half an hour through a vast meadow of tall grass, making what appeared to be a complete circle, when we suddenly came into a comfortable farm-like establishment, surrounded by barns and hay-stacks. Numbers of horses, cows, and chickens welcomed our arrival, each in his own peculiar way, and visions of fresh milk and eggs whetted our long-nursed desires.

Our men were but a short time in starting a fire on the hearth and beginning the preparations for their meal, during which time we found our way to the station building. This building had to be kept by an old Pole, employed by government for no other purpose.

Irkutsk, so called after the capital of Eastern Siberia, comprises but little more than the house and barns of the keeper, intended merely as a relay station for changing horses during winter journeys up and down the frozen river. The station is supported at government expense, though the proprietor owns all the horses, for the use of which he receives monthly two hundred roubles.

The house was a well-built structure of logs, comfortable and homely, but that which most attracted our attention was the neatness and cleanliness that we had hitherto found so remarkably deficient among the humbler classes. Here everything was in its place, and even the rude floor was polished, from the careful and frequent scrubbing it received. The surrounding country is eminently fitted for the support of such a station on account of the unlimited yield of succulent hay, the plain's produce. Thousands of horses could be reared at very small expense. Notwithstanding these advantages, the place has its drawbacks in the inundations of the Amoor, which occur from time to time, doing much damage by sweeping off the stacks of hay for winter use. Upon congratulating our old host upon his air of prosperity and happiness his place displayed, he shook his head mournfully, and entered into a long account

of one of these freshets which had taken place but two years before, and well-nigh ruined him.

At that time the river rose to an almost unprecedented height. The neighboring country was a vast lake, over which the accumulated waters swept with such force as to carry every thing before them. Much of the old man's stock was swept away, and the remainder only saved by driving it to the hills. This loss was very heavy for him, but immediately afterward the long winter came on, and his hay having been carried off, nearly all the remainder of his horses and cattle died from starvation, leaving him insufficient to supply the demands of the post, and without means to procure others. By industry and economy, however, he told us he had managed to struggle onward, and at the time of our visit was just beginning to recover his former condition of prosperity and independence.

Notwithstanding a recurrence of the freshet may be annually expected, a surprising want of foresight in the old man prevented him from placing his stacks beyond high-water reach. Such improvidence we afterward found exhibited throughout the country, but in this case it appeared more glaring, since the recent disaster was so fresh in the station-keeper's mind that he could not speak of it without weeping. Fortunately, as it proved, we had an excellent antidote for tears at hand, a good quaff of which soon restored him to good humor.

We barely had time to make known our wishes after entering the house before the housewife, a large, healthy woman with teeth like pearls, and her whole countenance radiant with smiles, began to bustle about in the preparation of our meal. This, when completed, fully realized our anticipations. The gusto with which we assailed the fresh milk, eggs, baked salmon, etc., produced an ill-concealed expression of astonishment on the countenances of all present; and there were quite a good many of them, for the whole population of the place had assembled to see the Americans.

I dare say at that place, if no other, American appetite have become proverbial, though the inhabitants themselves are by no means small eaters.

From this place we intended traveling all night, driftin

with the current, hoping to reach the small Russian settlement of Mikhaelofski by morning. For this town we were soon headed, having a small son of our host on board as a passenger for the night.

While at Irkoutsk we were all much interested in a curious specimen of a plow, such as is generally used by the inhabitants on this part of the river. The whole structure is of wood (there not being a particle of metal in its construction), and is formed of the natural bends and limbs of trees lashed together with thongs of leather.

Boat anchors are made in the same manner, small sharpened limbs answering the purpose of flukes. To give these weight, they are lashed around heavy stones. This last, however, is an invention of the Gilaks.

Just after sunset we again struck up the river, and, hoisting our rubber sails, sped along, with the assistance of the current, at a seven-knot rate.

This portion of our journey was perfectly delightful. The evening was warm and beautiful as we entered the river, the western heavens still retaining a faint glimmer of the rose and orange hues of the setting sun, while overhead a few stray stars were beginning to sparkle in their azure setting. Darkness was fast creeping on, and already upon the river banks objects had begun to lose their individuality, and were by degrees blending together, forming long, dark, indistinct lines, denoting the river limits. A brisk but warm summer breeze filled the sail and helped us on our way, making it unnecessary to row. All hands gave themselves up to enjoyment and comfort, each in his own way, and the progress of our craft was trusted to the wind and currents.

Our blankets had been spread over a thick layer of hay, making a couch comfortable under any circumstances. Upon these we reclined, enjoying our after-dinner smoke and listening to the melodious Russian airs of our soldier-boatmen, whose sweet voices sounded doubly musical in the night air. From time to time, as we were sweeping onward, their songs would be answered from some obscure habitation on the shore, the faint notes reaching us blended together in a continuous strain of harmony, and mingled with echoes whispered back from some distant cliff, while at others they

would awaken an unearthly chorus from the troops of wild dogs at some Gilak settlement near by.

These people are all great lovers of music. They might, in fact, be called a musical nation, though their taste and ability for it is not at all surprising, since both boys and girls almost from infancy are taught to sing. Nearly all their games and amusements are combined with song, and even in dancing they rely much upon the voice for preserving time.

Upon this occasion, however, one of our soldiers seemed to be in no mood for singing, preferring rather to squeeze as far forward as possible into the bow of the boat with our little passenger, and there indulge in a lengthy whispered conversation. He seemed perfectly oblivious to every thing and every body but his companion. Upon our calling to him to sing, he stammered out some excuse in Russian which we could not understand, and, after casting a sheepish kind of glance around at his companions, continued his conversation. His apparent reticence somewhat astonished us, but just then our helmsman leaned forward and whispered, "The boy has a pretty sister." This explained all, and, not knowing but that one or more of us might some day desire the intercession of a favorite brother, we left him undisturbed in his novel love-making.

During the first hour's sail from Irkoutsk we enjoyed the perfection of traveling, but then a complete, sudden change took place. Heavy black clouds rolled up from the west, obscuring the heavens, and a darkness settled over the country that was almost tangible. Lurid flashes of lightning darted from the threatening masses, and we had barely time to roll up our blankets and cover ourselves and baggage with rubber ponchos before the storm broke upon us in all its fury, nearly deluging the boat with a torrent of rain. In an incredibly short space of time the wind had increased to a gale, splashing the waves over the clumsy sides of our boat, and strewing the black surface of the river with white caps, that gleamed in the pale flashes like so many phantoms. At the outset we had been obliged to lower the sail to avoid capsizing.

The lightning continued but a few minutes, however, and,

the last flash, we found ourselves hemmed in as if by an wall. We could not even distinguish one another in darkness, much less see to guide the boat, which was oned to her own course. In this manner we drifted arly two hours, hoping that the storm would pass over, e might continue our journey during the night.

A good fortune was not reserved for us, and at length re constrained to take to the oars and endeavor to find with whatever accommodations it might afford, since at was momentarily in danger of being swamped. We dared hope for other shelter than some rock or tree, boatman informed us there were no habitations within of our supposed whereabouts.

length a grating sound and noise made by one of the elling backward off his seat proclaimed the presence l, but what was still more welcome was the barking og a few hundred yards distant, a sure indication of abitation, whether Gilak or Russian we were not par-

. Our shouts were soon answered by the glare of a which suddenly broke upon the darkness, serving as a to direct our steps to a bark habitation, a small por- which, lighted up by the blaze, we could indistinctly rough the falling rain-drops. This proved to be the of a party of Russian soldiers temporarily stationed or the purpose of laying in a winter supply of salmon. owing the guidance of the torchman, we dodged into doorway, when a sight met our gaze which caused our once more to sink to zero. The small inclosure, 8×12 as literally jammed. A row of rude, narrow bunks, l on either side, completely filled the space, with the ion of a cramped passage-way leading through the and each bunk, though large enough to accommodate e person comfortably, was occupied by two soldiers.

hut itself was built entirely of bark tacked to a light of poles, but afforded only partial shelter from the and rains without, owing to carelessness of construc- id natural imperfections in the bark.

cely had we made ourselves known when several of ldiers, verifying the previous statements of Russian ality, tendered us their beds. But to accept their gen-

erous offer and turn them out of doors on such a night would have been simply outrageous, and we directed our steps out into the storm once more to find other shelter, but failed. When, at length, some of the soldiers assured us that if we would accept their berths, they could find shelter for themselves and our men at a neighboring encampment, we gladly availed ourselves of their offer, deciding, however, to occupy but one berth, in order not to discommode them too much. Our little passenger had no difficulty whatever in securing nestling room between two of the soldiers, probably also aspirants for the honor of becoming a brother-in-law.

Disregard of one's own comfort to contribute to that of others is one of the most commendable of human traits, in my opinion, particularly so in cases where one's self is the recipient and not the loser. I at one time thought, however, that it was better to give than receive; but, upon the very few occasions in which I put into practice this maxim, I found my supposed generosity received with such indifference and as a matter-of-course-ness, that I desisted from it afterward, except upon special occasions. This night in the soldiers' hut was one of those special occasions.

Sleeping three a-bed in a narrow bunk, with scant, narrow cover, of course the middle place is most desirable, particularly when the outside sleepers are exposed to a cold wind and rain. The bunk stood against the miserable bark partition or wall of the hut, through which the wind howled all night, and the heavy rain-drops, dashing against the outside, splashed through the knot-holes and cracks in a perfect spray. Though aware of this fact, I volunteered to sleep next the wall, and took pains to lie on my side and breathe as little as possible, so as not to occupy too much space.

The captain, a great, fat, Dutch sea-captain, and weighing about one hundred and ninety pounds, occupied the middle, while Mahood, by bracing one foot against the bunk opposite, managed to keep on the front of the bed.

The torch was barely extinguished when a deep snore, like a peal of distant thunder, issued from the captain's throat, and he rolled heavily upon his back, nearly forcing me through the bark wall by the unexpected change of position. To remonstrate was useless; the Furies could not have awakened

For many long, sleepless hours I lay, assailed on one side by the cold wind and splashing rain-drops, and on the other sustaining the huge corpus of my neighbor. By degrees the covering vanished, in spite of importunities to my fellows for a little mercy. When at length day dawned, it was a joyous moment, notwithstanding my clothing was perfectly saturated and myself speechless from hoarseness. The hood was but little better off, having been obliged to lie like all night to retain his position in bed. Poor fellow! I could have pitied him, but there was no room in either of our feelings for any other emotion than that of indignation when we discovered the cause of our discomforts. There lay the captain flat upon his back, completely enveloped from head to foot in every bit of the covering, as compactly as an Egyptian mummy. To aggravate us all the more, his first utterance upon opening his eyes was, "Well! these accommodations are not so bad, after all; I don't know when I felt better." We didn't deign to answer him.

The morning was clear, with a good breeze. Our soldiers constructed a larger and better sail from an old army blanket and several bags, and by seven o'clock we had gone several miles.

The scenery was much the same as that of the day before. The banks dotted with small Russian and Gilak settlements. I could not help admiring the taste displayed by many of the Gilaks whom we passed in the manufacture of their boats. They are made of birch-bark, shaped like a low, broad bowl, the outside covered with beautiful scroll-work figures from stained bark.

At 12 o'clock we arrived at Mikhaelofski, having made the distance of sixty-five versts in six hours. The country adjoining this place is more cultivated than any we had seen on the river. We noticed several fields of grain on the river sides cut and stacked, ready to be hauled off.

Mikhaelofski contains about three hundred inhabitants, and is composed of quite large, comfortable houses standing in a row facing the river, opposite which, sloping down to the river's edge, were garden patches, growing potatoes, turnips, cabbage, and other of the more hardy vegetables. Here we dined for dinner at one of the residences, and were very



MIKHAELOFSKI.

agreeably entertained during our stay at the house and her daughter, recently graduated from the ladies' seminary at Nikolayefsk.

Shortly after leaving Mikhaelofski another storm, making it necessary to leave the house, was of short duration. Light showers fell during the afternoon, however. At this point the mountains—before seen in the distance—the river, rising abruptly from the valley, giving very much the Highlands of Scotland. It is not easily to be imagined ourselves sailing on the river, it not been for a picturesque Gilak valley, with its group of

rk threatening clouds hung overhead, and we saw lightning on the horizon, which rather portended a n of our experience of the night before, but fortunately the storm passed in another direction. It was, however, dark sailing under the high banks and bluffs that the river at this point. On one of these bluffs are the of an ancient temple, and three Tartar monuments with inscriptions. We would have liked very much to see and visit them, but had not the time to spare. In his "Voyage down the Amoor," gives a minute description of these relics.

As we were passing near the cliff on which our men told the monuments stand, we were greeted from the darkness by a most unearthly chorus of howling, barking, and yelping, as though the entrance to the realms of Pluto was at hand and all the Furies loose. The night was so still and dark that we could easily have imagined the sounds coming from a thousand invisible throats in the air immediately around us, but, not possessing very superstitious temperaments, we readily concluded that it must be a Gilak settle-

ment. It was our intention to row and drift all night, and as the weather was a little cool, we decided to head for shore, to prepare for our landing as we should get beyond this settlement. Directly in front of the dark cliff, we soon brought up on land, and the men, after feeling around in the darkness for some time, gathered up a few dry sticks and started a fire. This was a signal for a new chorus, as we had landed just in another village, and in a few moments our party was surrounded by a troop of half-naked men, women, and children. Scores of hungry-looking dogs darted through the darkness on all sides.

The night was cold enough to require an overcoat, but the natives were without hats, and had no covering for their heads and legs. Their bodies were protected simply by a skin gown, open in front, and, to all appearances, no different from whatever.

The Gilaks are a very superstitious, pagan people, worshippers of wood and stone as of old, though many of them have been baptized into the Greek Church, and wear small

metal crosses suspended about their necks. They have their priests, or "shamans," who conduct all their ceremonies and are the advisers of the communities. These shamans are supposed by them to be gifted with supernatural powers, and are held in great awe and reverence.

Their funeral rites are sometimes quite impressive. The remains are first burned, and afterward a small wooden house or tomb is erected over the ashes. At death the soul is supposed to take up its abode in the favorite dog of the deceased, where it remains until released from its confinement by the death of the animal. To facilitate its escape, it has become customary to sacrifice the dog at the tomb of its master, the creature being first fattened for the occasion.

Among other superstitious notions, the Gilaks will not allow a particle of fire to be taken from their habitations, not even in a pipe. A violation of this custom they firmly believe will be the occasion of some great disaster—either a complete failure in fishing or in the chase, or the death or serious accident to some near relative or dear friend.

But not all their superstitions are as harmless and inoffensive as this. Some are perfectly barbarous. For instance, during parturition, whether in winter or summer, the unfortunate mother is ejected from her habitation—thrust out of doors, exposed to the inclemency of the weather, there to provide for herself as best she may, solitary and ignored, until a certain period shall have elapsed. During this time every possible assistance is denied her, it being considered almost criminal to lend her the slightest attention, and, as a natural consequence, death often ensues. Their dogs are much more tenderly cared for, they, at least, being allowed shelter.

Murder is not an uncommon occurrence among these people, being often committed upon the slightest provocation. They are governed by no established laws except those dictated by superstition, which differ in different localities. A murderer is usually punished by the friends of the deceased, who are bound in some manner to avenge his death, generally by counter-murder. An eye for an eye and a tooth for a tooth is their notion of justice.

Formerly bows and spears were their only weapons, but of late these, the bow especially, have been discarded for

small-bored flint-lock guns, which they procure in trade from the Russians. Their habitations differ somewhat in their construction. Many of them are erected on posts several feet above the ground, and are surrounded by a platform, upon which they stow away their sleds, nets, weapons, etc. These platforms are reached by rude steps cut in a log. Many of their houses are heated by a fire in the centre of the room, the bunks for sleeping ranged around the sides, and a square hole in the roof for the smoke to escape through, while others have the fire in a kind of oven in one corner, the smoke and heat being conducted entirely around the room, under the bunks, before escaping from the chimney. This is in order to heat their beds during the winter. Suspended to the rafters overhead they frequently have hundreds of salmon curing in the dense smoke. This is called "ukale" by the Russians, and, when carefully prepared—"and you know the woman as made 'em," as Sam Weller said of veal pies—are quite palatable.

While preparing tea our soldiers were constantly joking and poking fun at the group around us, who laughed and seemed to enjoy the tricks as much as we did.

On learning that we were Americans, they became exceedingly curious, and watched our motions with the greatest interest. The buttons on our uniforms were minutely examined, as was every thing connected with our dress, though the inspection was carried on in a quiet, inoffensive manner.

While here, our attention was attracted by a curious noise from some settlement far up the river, sounding like the beating of a bass-drum. This, upon inquiry, we learned to be a party of Gilaks invoking the spirits to attend them and crown their efforts in fishing with success.

We once more pushed out in the dark, and, having given our men instructions to let the boat drift with the current, retired to our blankets, and were soon lost in blissful repose, oblivious to all that was transpiring. In the night we drifted ashore, and, upon awaking at daylight, found our mast caught in a cluster of overhanging willows on the river bank. Having aroused the men and put them at the oars, we once more lay down, but in an hour's time, upon again awaking, we found the boat drifting down stream stern-foremost, and

all the men—helmsman and rowers—sitting at their sound asleep.



At 6 o'clock we went ashore near a Gilak settlement to make tea, and were soon surrounded by a group similar to the one of the night before. They wandered barefooted over the jagged stones on the beach as though their feet were soled with iron, while the cold seemed to have no effect on them whatever. Some of them presented a very amusing tableau as we pushed from shore. Near our fire was a

stump of driftwood about six feet long, on which six of them sat, with their feet drawn up under their bodies, their heads resting on their hands, and their elbows on their knees. In the group was an old gray-headed man, the patriarch of the village; and from him down, in both sexes, to a little boy hardly old enough to walk, who, however, imitated the attitude of the others with the greatest precision. I would not have believed it possible to roost so many humans on a log of that size, had I not seen it done.

During the day we saw several white storks wading near the beach, but we were unable to get within gun range of them. Numbers of grampuses, or "bielugas" of the Russians, white, and about twenty-five feet long, were constantly rolling out of the water, spouting like whales. They ascend these large rivers in search of salmon, upon which they subsist. Their young, numbers of which we also saw, are nearly black. After passing through a variety of scenery—hay-meadows and highlands, interspersed with settlements—at 4 o'clock P.M. we came in sight of the shipping anchored in the river opposite Nikolayefsk. Here we met a small steamer slowly making its way against the current, with two large barges in tow, and passed another barge heavily laden with hay, drifting down.

The left shore is a continuous meadow, on which thousands of tons of hay were ready stacked for use; and on the right extended an abrupt range of hills, along the base of which ran the De Castries telegraph line, which we had traced for many miles. As we neared the town the edge of the river was lined with seines and fish-traps, suggestive of the diet awaiting us, and proclaiming either the scarcity of other food, or the particular fondness of the inhabitants for this.

CHAPTER VI.

Nikolayefsk.—Origin.—Location.—Fortifications.—Appearance.—campments.—Church and Chancellerie.—Drays.—Mr. Chase.—Assemblage.—Surprise.—Prasniks or Holidays.—His Excellency Kazakevitch.—Suspension of Labor.—Difficulties of Building.—Services.—Intoxication.—Lafkas.—Population.—Foreign Merchant Guilds.—Starastas.—Houses.—Port Buildings.—Machinery.—Messrs. Barr, Woods, and Elliott.—Barracks.—Club-rooms.—Newspaper.—Schools.—Park.—Band.—Amusing Manner of Officers.—Trades.—Arrival of Admiral Furrubelm.—Reception.—Parade.—Toasts.—Tossing the Governor.—Distinguished Honor.—Ladies Vanish.—Musketry.—Disconsolate Males.—Dearth of Intelligence.—Captains Lindholm and Swartz.—Orell Lake.—Solavaoff.—Rewards.—Yakov.—Discouraging Assurances.—The Gonets.—Journal.—Friends.—Valuable Assistance.

NIKOLAYEFSEK, named after the Czar Nicholas, was by Captain Nevilskoi in the year 1851, as a trading post of the Russian American Company, but it was not until the year 1854, when the troops and munitions of war were removed from Kamtchatka to this place, that it became of much importance. The town is situated upon a plateau on the left or northern bank of the Amoor, about twelve miles above the Liman or Gulf. The river at this place is a mile and a quarter in width, having a current of about eight knots, but is shoal on the side next the town—so that large vessels are unable to approach the wharves. Opposite the town, upon an island, is erected a fort mounting twenty-four guns and mortars, called Fort Constantine, which commands the approaches to the place from above, while it is guarded by three other fortifications. The highest of these, Fort Nicholas, is situated upon a point of land at the lower end of the town, and commands the immediate neighborhood, while the others are situated one of them four miles from the town on the opposite shore, and the other is called "Chnyrrakh," about ten miles above the mouth of the river.

The appearance of the town, as we approached, so disappointed our expectations, notwithstanding we had

allowances for its newness. A row of one-story log buildings wrinkled along the river bank, backed by a dingy-looking rest of conifers of small size, disclosing in their midst a small church surmounted with a dome, were all that presented themselves to view from the river, though, upon closer inspection, the air of bustle that prevails, together with numbers of small water-craft plowing about the wharves, and the groups of men upon shore, somewhat revived our interest. Shortly after passing Fort Constantine, our helmsman veered for the lower of two log wharves jutting for some distance out into the stream, which we reached just before dark. The beach was literally lined with Gilak lotkas laden with fine freshly-caught salmon, and all along at the foot of the plateau were their encampments, of every conceivable style, presenting very curious and picturesque groups. Some were small, rude bark shelters, barely large enough to hold 20 persons, while others were formed of canoes inverted in such a manner as to form roofs. In addition to these were many others, in which no kind of shelter was used whatever, consisting merely of large camp-fires, about which the natives—men, women, and children—were assembled preparing their evening meals.

A good road, leading to the plateau above, winds along the side of the bluff, following which we soon found ourselves in the main street or thoroughfare of the town. This street extends along the river bank for nearly two miles, and is bordered with narrow board sidewalks. Directly in front of us stood the church, rather more imposing upon nearer inspection, situated in an open square, just back of which were the chancellerie buildings—a one-story group of logs, surmounted with a signal-staff for signaling vessels lying in the stream.

Numbers of officers and gray-coated soldiers were promenading up and down the walks, enjoying the mild evening air, and, notwithstanding the lateness of the hour, men with small drays laden with hay, drawn by diminutive horses, continually passed, the poor little beasts nearly quailing beneath the volleys of Russian oaths showered upon them by their remorseless drivers. Such life and activity we were not prepared to meet so far from the world, though the long,

leisurely strides and expansive waists of the officers whom we saw proclaimed theirs to be any thing but an arduous life.

As already stated, we had brought with us from Kamtchatka letters to Mr. Chase, acting commercial agent of the United States, to whose residence one of our soldiers guided us. His is one of the ornamental buildings of the place, being clapboarded, and is situated adjoining the church square.

Greatly to our surprise, upon entering the well-furnished apartments, we found ourselves in the midst of quite an assemblage of American gentlemen, engaged in the mercantile business in the town. These gentlemen were expecting us having that day received the dispatch we had forwarded from De Castries by telegraph five days previously. The familiar sound of our own tongue made us, for the time being, forgetful of our whereabouts, and but a few moments sufficed to put us upon terms of perfect familiarity, so great was the relief of finding one's own kind in the world of strangeness that had every where confronted us since leaving the Olga.

What with inquiries from our new friends concerning America, mixed with information relating to those portions of the country we were about to traverse, the evening was soon passed, and we retired, preparatory to the commencement of our arrangements on the following day for our winter explorations.

The next day, Sunday, being a "prashnik," or holiday, and one suitable for calling, we first of all paid our respects to his excellency Admiral Kazakevitch, the governor of the sea-coast provinces of Eastern Siberia, Mr. Chase kindly accompanying us as interpreter. His excellency, a fine-looking old gentleman of very dignified demeanor, but, withal very sociable and pleasant, received us most cordially, and expressed the greatest interest in our enterprise, offering every possible assistance during his short stay, since he was in daily expectation of the arrival of Admiral Furruhelm, the newly-appointed governor, who was soon to succeed him. He kindly placed at our disposal all reports or charts in the chancellerie that might throw any light upon the country we wished to explore, but, upon searching afterward, we could

find nothing that would be of the least assistance to us, the country lying between the Amoor and Okhotsk, and adjacent to the Okhotsk Sea, which we would first traverse, being at that time *terra incognita*.

Upon *prasniks* all work is suspended, each and every one giving himself up to enjoyment. Morning service is usually held in the church, and in the afternoon the lower classes celebrate the day by getting drunk on diluted alcohol, often remaining in that delectable condition for days. These *prasniks* not only include Sundays, but all the saints' days, besides the birth-days and death-days of every body of note, consequently nearly two thirds of the year are consumed by them. In some weeks there are no less than eight *prasniks*, two sometimes falling upon the same day.

Among the foreigners we found much complaining of the frequency of these holidays, and the consequent suspension of work. By them it is considered a lifetime undertaking to have a house erected, and even so small a matter as the building or repairing of a heating-oven has been known to occupy five weeks.

Nikolayefsk contains a population of about five thousand souls, chiefly military and convicts. But few ladies, comparatively, reside in the place. A number of foreign mercantile houses are represented, among others several from our own country, the proprietors of which live in a style hardly to be expected in this portion of the globe, indulging in all the luxuries and comforts that their ships can convey, and these we found to be not a few.

As in Russia proper, the mercantile population is divided into grades or "guilds," as they are called, each grade being regulated by the amount of capital employed. The first class are required to represent a capital of thirty thousand roubles, and pay a certain guild for the privilege of trading. To this grade belong all the foreign merchants, who are entitled to all the rights of citizenship, and are required to serve as "*starasta*," or mayor, if elected to that position. The *starasta* is usually chosen from the first guild merchants, to look to the interests of the mercantile class. At the time of our visit, Mr. Luhdorf, a Hamburg gentleman, occupied that position. The foreigners represent the majority of the capital

of the place, and have to contribute largely to all public improvements.

"Vodki" or alcohol, together with other spirituous liquor, cigars, tea, sugar, flour, and salt are the chief articles of trade, especially the former, of which immense quantities are consumed. There are at present in town no less than seventy-five "lafkas," or places where liquor is sold, and drunkenness may be seen at almost any time on the streets.

The houses are generally large and comfortable, and, with two or three exceptions, constructed of logs, the better class of them being neatly papered, and well furnished and carpeted. After paying our respects to the governor, we directed our steps to the lower end of the town, where are the port buildings, or government machine establishments. These are very complete, comprising all kinds of machinery for the manufacture of metallic or wooden ware, in addition to a foundry, saw-mills, etc. The whole is under the superintendence of Mr. Barr, an American gentleman, who brought over two steamers from America for the Russians, and in the year 1858 received a gold medal for the zeal he manifested. Messrs Wood and Elliott, two other Americans, have the immediate charge of different departments under Mr. Barr.

In addition to hospitals, barracks, etc., for the soldiers, the town boasts a club-house for the officers—a large, comfortable log building, containing a ball-room, parlors, card and reading rooms, besides a bar and billiard saloon, the latter containing two American tables, which, however, saw their best days a number of years ago. A table is set daily for a large number of officers who board at the club, though, judging from their complaints, the fare can be nothing extra.

A semi-monthly mail from St. Petersburg renews the supply of papers and other reading matter, some of which we noticed to be of quite recent date. A small weekly paper published in town.

Two flourishing schools have been established, one for young ladies, and the other for the children of the soldiers and sailors, both of which, I understand, are well patronized, and enterprising parties have opened two photographic galleries, sometimes turning out very good pictures.

Upon the main street, extending down to the river, a fe

acres have been set aside for a park, and, though as yet new, it is quite a public resort, particularly Sunday afternoons, when the military band plays selections from different operas and other music remarkably well considering their short practice and the manner in which the band was organized. To obtain the different performers who compose the band, a large number of soldiers were drawn up in line, and then the leader, passing along the front, examined the mouths and sounded the chests of each. Upon finding certain ones to suit him, they were put aside until the requisite number had been obtained. To each of these was then allotted a particular instrument, though many of them had never before seen one, and were at a loss to know which end to apply to the mouth. In this same manner the different trades are supplied, certain ones being ordered to apply themselves to certain callings.

We found the park tastefully arranged, and neatly laid out in winding gravel-walks, bordered with an abundance of shade-trees, though the latter were yet small. At some future day this will be an ornament to the town.

Nearly two weeks elapsed after our arrival before Admiral Furruhelm reached Nikolayefsk. During this time the whole population was on the *qui vive*, such an event as the change of governors not having taken place for ten years previously. All were full of bustle and excitement, making arrangements to receive the new governor, and to honor the retiring one with a farewell banquet and ball as a testimonial of the high regard in which he was held.

Upon the day of reception the troops were paraded and reviewed by the governor, the officers appearing most gorgeously attired in their brilliant uniforms, ornamented with gold and silver bullion. Crosses of St. George, Vladimir, and Stanislaus were in the greatest profusion, together with other badges of honor, many of them received by the wearers for meritorious services rendered during the Crimean War. The banquet which followed surpassed all expectations. For the occasion the club-rooms were beautifully decorated with flags, evergreens, and polished arms, and the tables burdened with delicacies. Toasting followed feasting, the first being to the health of the Czar, proposed by the old admiral, when all

arose to their feet, and, after a lusty cheer, drained their glasses. Others followed in quick succession, among them one to the success of our enterprise, which Mr. Chase kindly responded to in our behalf. Ignorance of the Russian language made this portion of the entertainment a little uninteresting to us, not being able to understand the toasts except as afterward translated. At the close a general rush was made for the admiral, in whose honor the feast was given. The band struck up the Russian national air, which was nearly drowned by the cheers and shouts of the assemblage. We were wholly ignorant of what would follow, nor was our curiosity gratified until the short, fat figure of the admiral suddenly appeared, shooting into the air above the heads of the assemblage, and as suddenly disappearing again in their midst. This was repeated for some moments, until his excellency could, to all appearances, survive it no longer, and his tossers were equally exhausted, and then he was borne by the officers in procession, headed by the band, through the streets to his residence. To be tossed in this manner is considered a great distinction, but such, I should judge, as would not bear frequent repetition.

Gentlemen only appeared at the banquet; but two days later, upon the occasion of the ball, the ladies were out in full, elegantly attired and jeweled befitting the occasion. Their rich dresses, with the uniforms and decorations of the officers, sparkling in the light of hundreds of candles by which the hall was illuminated, made a very showy display. I could not but remark, however, the almost total absence of beauty among the fairer sex. The men, as a class, were by far the better looking.

At midnight dancing was suspended, and all adjourned to do justice to a bountiful supper. This was hardly over when, as if by magic, almost every lady suddenly vanished from the dancing-hall and parlors. It could not be possible that they had withdrawn altogether, as the band had already struck up for a renewal of the dance. Being unable to solve the mystery to my own satisfaction, I asked an explanation of a gentleman with whom I had been conversing. "Come with me," he replied, and, following his guidance, I soon found myself in one of the large parlors, but as yet none of the ladies were

seen. "Now," he said, "as we pass that open door, in." This direction was explicitly followed, and a sight of gaze which I confess somewhat astonished as well as I. The apartment was filled with smoke, not so however, as to prevent us from distinguishing through the missing forms ranged around the room with knees, each leisurely enjoying the luxury of a Russian papy-cigarette. Their merry laughs and rattling conversation they found vent through the partly opened door, not to be more appropriately compared than to the ceaseless of musketry as heard issuing from the dense smoke.

The male portion of the assemblage appeared perfectly disinterested as they wandered neglectedly through the silent room, though, upon the reappearance of the ladies and resumption of dancing, mirth was once more in the ascendency, continued so to a late hour.

Ever since our sojourn we had made every effort to obtain some information concerning that tract of country, so far mentioned, which extends from the Amoor northward to the town of Okhotsk. The exploration of this region was the task allotted Mahood and myself, Major Abasa promised to meet us at Okhotsk. Of this vast extent of territory, to traverse which would necessitate a journey of miles and upward, nothing was known except concerning a small portion adjacent to the Amoor, over which a half-dozen persons had passed. Two of these gentlemen, Messrs. Lindholm, a Swede, and Swartz, a Pole, we were fortunate enough to meet in Nikolayefsk, to both of whom we were indebted for much good advice and valuable information while preparing to outfit for the journey. Mr. Swartz afterward joined us as interpreter.

Our first destination after leaving Nikolayefsk would be a whaling station at the head of Tugur Bay, distant about ten days' journey with reindeer from Orell (eagle). This lake lies near the Amoor, about sixty miles west of Nikolayefsk, and can be reached by water. Mr. Lindholm, as I have mentioned, was the proprietor of Tugur Station, and was not intending to return to that place until late in the winter, otherwise we would have availed ourselves of his

company during the journey. From him we learned that it would be necessary to secure reindeer both for riding and packing, on account of the swampy nature of the route over which the route lay. These animals being very scarce and only in use among the few scattered families of Yakutians in this region, we had to avail ourselves of the offers of assistance made by Governor Furruhelm in order to procure the requisite number. Without his valuable aid we could have accomplished nothing. His excellent management and greatest interest in our expedition, he himself assumed charge of preparing our outfit. He informed us that a Yakout cattle-merchant named Solavaoff would send us with deer from the direction we wished to take, and our departure could be postponed a while, animals being procured from him to carry us to Tugursk. At Tugursk we expected to obtain a fresh relay, also to renew our stock of stores, having been informed by Captain Lindl that the post was well provisioned.

For many days we delayed taking further steps to procure deer, constantly expecting the arrival of the Yakouts. In length, fearing lest our departure should be deferred so long that it would be too late to start on our journey before the opening of the winter roads, it was deemed advisable to procure deer elsewhere. To facilitate matters, Cossacks were dispatched in different directions in search of the Yakouts, with instructions to bring to town all that they could find. In the mean while all our preparations were completed.

After an absence of a few days the Cossacks returned, bringing with them a band of wild-looking, fur-clad hunters. They were all very poor, not having more than sufficient to enable them to carry on their fall hunt for deer and sable, consequently were very reluctant to part with their animals. These were, however, finally procured through promises of swords and medals from the Government as rewards for their services should they convey us safely and soundly to Tugursk.

A Cossack, Yakov, had also been detailed to accompany us as far as Oudskoi, a small Russian settlement some journey distant, and situated near the Okhotsk Sea.

ispravnik, or sub-governor of the Oudskoi district, we were provided with letters of instruction, directing him to afford us every assistance, and replace Yakov by another Cossack upon the renewal of our journey from that point. With such valuable and hearty co-operation, we were prepared to commence our difficult explorations with light hearts, notwithstanding positive assurances from several of our newly-formed acquaintances that, if we should venture far into those wild, mountainous regions, it would cost us our lives.

Yakov and the Tungusians departed immediately to assemble the deer and drive them to Orell Lake, at which point we were to join them on the 22d of October. A fine little government steamer, the *Gonets*, had already been offered us as conveyance for ourselves and baggage to the lake, and, at length, our arrangements were all completed.

Concerning our stay of thirty-five days at Nikolayefsk, I have but one regret to express, and that the inconveniences and restraint to which we were subjected through ignorance of the Russian language, whereby we were prevented from cultivating social relations and extending our acquaintances with the many kind and disinterested friends with whom we came in contact. From first to last, every possible courtesy was extended us, and every wish anticipated and gratified even before it could be expressed. No pains were spared to make our sojourn agreeable, every species of amusement the place afforded having been indulged in.

The hearty co-operation and invaluable assistance rendered us in connection with our expedition, both by the ex-governor, Admiral Kazakevitch, and his successor, Admiral Furruhelm, as well as Captains Belsoif and Hackel, of the Engineers, and numerous others, deserve the lasting gratitude of all who were in any way connected with or interested in the great enterprise. As previously stated, without their assistance we could have accomplished little or nothing.

CHAPTER VII.

Departure from Nikolayefsk.—Farewell.—Prophecies of our Friends.—Scarcity of Reindeer.—Mr. Swartz.—Yakov.—Outfit and Provision.—Steamer Gonets.—Up the Amoor.—Margah.—Pilots.—First Ice.—Palvo.—Intricate Channels.—Cleaving through the Ice.—Consultation.—Necessity of pushing ahead.—Snow.—Aground.—Lost in the Storm.—Defeat and Retreat.—Despondency.—Fishing Camp.—Weather moderating.—Rain.—Yakout Pilots.—Fresh Start.—Ice.—Frightened and rebellious Crew.—Open Water.—Orell Lake.—Strong Breeze.—At the Rendezvous.—Gilak Encampment.—No Deer.—Distant Shouts heard.—Mahood's Cruise.—Leaky and smoky Tent.—Our Neighbors.—Shelter.—Cradle.—Industry.—Dogs.—Filthiness.—Sacred Grounds.—News of the Deer.—Party in Search.—Rain.—Game, Fish, and Ukale.—The Gilaks.—Alone.—First Reindeer.—Disappointment.—Their Appearance.—Deer-riding.—A queer Sight.—Experience of the Party.—Mikhaeloff and Constantine.—Tungusians.—Physiognomy.—Customs, Dress, etc.—Deer Feed and Feeding-grounds.—Departure of the Yakouts.—Parting Salutations.—Reverence.—Our Commissariat.—Preparations for the Journey.—Deer-packing and Saddles.—Weak Backs.—Cautiousness.—Remarkable Fest of Strength.

At length the day fixed for our departure, October 21st, rolled round. It was already the season for ice to begin to form upon the river, and knowing that a delay of a month would be incurred should we be prevented from reaching the place of rendezvous on Orell Lake by the closing up of the narrow channels leading to it, at the appointed hour the Gonets loosed her cables, and our journey was commenced.

Before starting, however, many of our new friends assembled at Mr. Chase's residence, where, amid the clinking of glasses, toasts were drunk to our undertaking, and the final adieus and God-speeds were passed, though many of the party accompanied us to the wharf and saluted us with a parting cheer.

It was not without slight reluctance, I confess, that we commenced this journey. The thrilling portrayal of the hardships and privations endured by Kane, Hall, and other Arctic travelers gave us a foretaste of what might be expected. But yet I had consoled myself with the supposition that these ac-

counts might be somewhat exaggerated. When, however, to these were added discouraging assurances from the inhabitants of the country of the almost inevitable fate that awaited us in the deep, unknown mountain gorges of the Juggurange, and the fearful "poorgas" to which we would be subjected, and the utter impossibility of any succor ever reaching us in case of disaster, we felt indeed that we had a difficult task before us. 'Tis true we would encounter two or three Russian settlements along the coast, but these were accessible only by sea, the vast stretches of desert wilderness between them being only known to a few daring Tungusian hunters, who had penetrated some portions of them in search of the elk, mountain goat, and sable.

Owing to the scarcity of reindeer in the Amoor region, we could only procure eighteen for our journey. Four of these would be required as riding animals for our party, which consisted of Mahood, Mr. Swartz, interpreter, Yakov, the Cossack, and myself. Two Tungusians, who were to accompany us as guides to Tugur, and to take care of the deer, supplied their own riding animals. The fourteen remaining for packing our supplies and equipments were not sufficient to admit of our carrying a very complete outfit for the long journeys ahead of us; consequently we were forced to abandon all our personal baggage except the fur clothing we had procured at Petropaulovski, and two or three changes of under-clothing. Of provision we carried only enough to enable us to reach Tugur, where Captain Lindholm informed us our supply could be replenished. These consisted of tea, sugar, and pork principally. Fresh meat we expected to obtain from the Tungusians, to procure which we supplied ourselves with ten gallons of alcohol for trading purposes. In addition to the above, a light, cone-shaped canvas tent, made in the government sail-loft at the port; twenty-six canvas panniers for packing purposes, and four wooden, leather-covered boxes, with locks and keys, for the same purpose, besides bedding and a few cooking utensils, completed our outfit, with the exception of a small Fahrenheit spirit thermometer, and a larger one of Reaumur scale, flints and steels, compasses, and a few minor articles.

Our *cuisine* was very limited, comprising merely a tea-ket-

tle, fry-pan, small tin pail for making soup, and three enameled iron cups and saucers, with wooden spoons. For the remainder we depended upon sheath-knives and fingers. I neglected to mention our revolvers, two of Sharpe's breech-loading carbines, and a double-barreled shot-gun. For the Reaumur thermometer we were indebted to the kindness of Captain Belsoif.

The steamer *Gonets*, which was placed at our disposal for the trip to the lake, was a handsome little craft, built especially as a dispatch-boat for the navigation of the lower Amoor. Her comfortable arrangement and general appurtenances were eminently fitted to the service for which she was intended, though the thin iron hulk, which yielded like India-rubber to the action of the waves, was somewhat suggestive of frailty. Upon a former occasion during our sojourn, while making a short excursion up the river, this weakness became so manifest that we all began to fear lest she should collapse altogether. Waves were rolling very high on the river at the time.

The day of our departure was very favorable—calm and pleasant, but toward night it grew colder. At 7 o'clock P.M. the thermometer indicated $+22^{\circ}$ Fahrenheit—ten degrees below the freezing point. This sudden fall somewhat excited our anxiety lest we should, after all, be frozen out and forced to retrace our steps to Nikolayefsk, notwithstanding we could easily have reached our destination the following morning, weather permitting.

No steamer had as yet ever penetrated to the lake, nor had we any one with us who was at all familiar with the route, else we would have steamed during the night. The whole country at this point is cut up by innumerable sluices and channel-ways, forming an intricate network. Among these our route lay, and the Gilaks being the only ones who could guide us, upon reaching one of their villages called Margah, forty-three versts above Nikolayefsk, at 8.30 o'clock P.M., our boat was tied up to shore, and Mahood and Swartz went to secure their assistance. Two of the natives promised to accompany us, and by 4 A.M. the next morning we were again under way.

During the night the temperature had again risen to 28° ,

ugh the effect of the cold was visible on all sides, where
ts of thin ice clung to the river banks.

ortly after starting we passed a small Russian settle-
t called Palvo, containing three or four log houses, but
not stop, and immediately afterward entered one of the
ll channel-ways leading from the river to the lake. Our
e was very circuitous, winding through prairie lands, dot-
here and there with clusters of trees.

p to this time we had encountered but little ice; but, as
penetrated farther into the narrow lagoons, the quantity
ased alarmingly. The narrow strips we had first seen
ging to the shores, as we advanced gradually encroached
the surface of the water, until at length we found our-
es confronted by a continuous sheet half an inch in thick-
. Into this the steamer plunged, cleaving its own way,
with her small paddle-wheels shivering the glassy sur-
into myriads of particles. At first we made very good
ress, the ice being too thin to afford much opposition;
later it became much thicker, some of it measuring fully
ch, and our speed was greatly diminished.

his, we became convinced, was the opening of winter in
est, and, as not more than twenty miles intervened be-
us and the head of the lake, after a short consultation
as decided to make a strenuous effort to break our way
ugh, even at the risk of having the steamer frozen in.
ing in this, our only alternative would be to return to
layefsk, there to await the sealing up of the Amoor for
l, and then, with horses or dogs, to proceed to the lake
make a fresh start.

skov (the Cossack) and the Tungusians, after reaching
lake and finding no one to meet them, would soon be
ged to leave in search of food, or, perhaps, would depart
gether, thinking our expedition abandoned. All this
ld necessitate long delays before other arrangements
d be made; besides, in order to complete the long jour-
ahead of us before the close of winter, no time could be
ed.

o add to our alarm, at 9.30 A.M. a furious snow-storm set
accompanied by a light wind. The flakes fell so thick and
as to hide from view all traces of shore, and in a few mo-

ments whiten the ice. All landmarks were lost, but the Gilaks felt perfectly confident of guiding us to the lake unless prevented by ice, so we continued forward.

In this manner we had been running for some time, still breaking our way, when the boat suddenly stopped, having grounded. By backing off and putting on additional steam, a passage was opened in another direction for a short distance, when we again grounded. To proceed was now out of the question. The Gilaks, in reply to our inquiries, confessed their total ignorance of our whereabouts, having become confused in the storm, and the officer of the boat reported that his supply of fuel was nearly exhausted.

These were gloomy moments for us, and cast a damper upon the spirits of all on board. After another short consultation, we concluded that nothing could be done but to return as we had come, while our fuel lasted. With great reluctance we turned about, intending to go to Palvo, and there await either a spell of moderate weather, when we would renew our journey in Gilak lotkas to the head of the lake, or, should it become colder, procure dogs and try to reach Tugur with sledges. Our hearts failed within us at the prospect of defeat at the very outset.

After running an hour and a half, we came to a rude habitation where were twenty-five or thirty soldiers fishing, to lay in a supply for winter use. We were very hospitably received at this place, and, as the weather was by this time moderating, tried to procure a guide from among the soldiers, in order to make another effort. None, however, could be prevailed upon to accompany us for fear of being frozen in and starved before aid could reach them.

We nevertheless determined to make one more attempt, and, having secured the services of two Yakouts as pilots who fortunately happened to pass by in a canoe at the time, set the soldiers at work chopping wood, to renew our supply of fuel, and by night were in readiness to attempt another passage. Now prospects of success were much more encouraged, as it began to rain, and the thermometer had been standing all the afternoon at $+33^{\circ}$.

In the morning it was still raining, and, the Yakouts having come aboard, we left our moorings at 7 A.M., heading

or the lake. We experienced no difficulty in finding our way, and soon came to the entrance to the lake, but, contrary to our expectations, instead of yesterday's ice having disappeared, it extended ahead as far as we could see in a vast, unbroken, snow-covered sheet. Into this the steamer left its way, but not without much difficulty. Frequently he would get wedged in, and have to back out for a fresh effort. After working our way for a mile into the lake, the crew refused to go farther, but we persuaded them to try it a little while longer, and, in a few minutes, open water was discovered far ahead. For this we made, and soon had the gratification of finding ourselves with clear sailing. The lake is about thirty verstas in length by twenty in width, and averages in depth from three to eight feet, which was abundant water, as our craft drew but one foot.

When we had reached the middle, a strong northerly wind rose, which tried the strength of our little steamer greatly, and, though her thin iron hull shook and yielded to the pressure of the waves like an India-rubber boat, she brought us safely to our point of destination. Upon nearing shore we espied two very dilapidated log huts, but, as no smoke could be seen issuing from their mud chimneys, we knew that, for the time being, they were unoccupied.

A half mile farther eastward could be seen a faint curl of smoke rising against the dark background of larch-trees bordering the lake. For this we headed, in expectation of finding Yakov and the deer, but, upon approaching nearer, two stikas hauled up on the beach proclaimed it to be a Gilak encampment.

Having selected a suitable spot near by for our tent, our supplies were soon landed, and the Gonets, turning her prow homeward, rapidly disappeared from view in a thick haze that began to settle upon the lake. This was the last we ever saw or heard of her; but, as mild weather followed her departure, we had no reason to doubt her safe return.

Our Gilak neighbors could give us no information concerning the deer, they themselves having been but a day or two on the lake. While making their way to their winter quarters, which were situated upon a neighboring stream, the old snap had overtaken them, and prevented them, by the

formation of ice upon the rivers, from reaching their destination. They, however, reported having heard shouts far around the shore, which we thought might be our men, who were unable to come nearer on account of ice in the rivers entering the lake. This ice was too thin to sustain the weight of a man, and yet too thick to allow the deer to wade or swim, and might prove an obstacle for many days.

While our tent was being pitched by the two Yakout pilots, who had agreed to remain with us a few days, Mahood and Swartz borrowed one of the lotkas from the Gilaks and went in search of the missing party. Upon their return, they reported also having heard hallooing, but it was so far distant that they thought best to return to camp for food before attempting to find them. We had none of us eaten anything but a few sardines and crackers since leaving Nikolayefsk, and all felt the need of something more substantial.

The Yakouts consumed but little time in frying several fine salmon-trout obtained from the Gilaks, which, with a large kettle of hot tea, rapidly vanished from our board. Immediately afterward Mahood again set out, accompanied by one of the Yakouts, in a drizzling rain, to seek for the deer.

Our tent, being new and of very thin material, leaked badly—so much so that we could keep nearly as dry, and certainly much warmer, walking outside. We tried a small fire with but in a few moments the smoke became unbearable, and for want of better refuge Swartz and myself fled to our Gilak neighbors. Their only shelter consisted of birch-bark, sewed together in long narrow strips about two feet in length, and spread over a frame of light poles sloping to the ground and forming a shed-like covering, open in front and at each end. This was erected upon the beach, facing the high wooded bank, which served as a protection from the wind.

As we came up, one of the women was in the act of preparing the noonday meal over a small fire in front of the camp. A small pot contained several fine trout, near which was hanging a good-sized copper tea-kettle (a rare article among the Gilaks, who are, as a general thing, unable to indulge in tea). On this occasion we furnished them, in exchange for fish.



GILAK ENCAMPMENT.

Beneath the shed several deer-skins were spread over a thick layer of green boughs, upon which half a dozen humans and about as many dogs lay twisted and coiled into almost every conceivable shape. The group presented a curious, if not interesting tableau, which I will endeavor to portray in a few words, as it conveyed to us a very complete idea of the internal workings of a Gilak domicil, as well as some of their occupations.

At or near one end of the shed was a babe, tightly bandaged in a wooden box or cradle, something like those used by our American Indians, but with its little legs from the knees downward unfettered. This cradle was suspended from the ridge-pole, in an upright position, by four leather thongs, which were just long enough to enable the little one to reach the ground with its feet, by which it swung itself back and forth without assistance.

Near by, sitting cross-legged, Turkish-fashion, upon the skins, two frowsy-headed, haggard-looking women were sewing very industriously upon filthy skin garments, only pausing now and then to give some directions to the cook, and to launch something—what I don't know, but it sounded very harsh—upon the heads of a couple of naked little urchins,

who were disputing the possession of a deer-skin bed with an old, half-famished, toothless dog. The latter appeared to be conscious of his rights, however, and obstinately refused to budge beneath the feeble blows of his tormentors. (There were dogs in abundance, but the crowning feature of all was an old hag (no other word will express it), wrinkled, with a toothless, and clothed in the dirtiest of dirty skins, long, scant locks of hair dangling wildly about her face. She would have been a pitiable object had it not been for her occupation—that of catching vermin from the head of a beautiful faced girl, and disposing of them in a manner not very conducive to one's appetite.

Upon leaving the Gilak encampment, we climbed the hill just in front of it, to the woods above, when we found ourselves upon a spot held sacred by the Gilaks. Upon all the stumps scattered through the woods, were skulls of bears, placed upon the stumps of small trees from four to six feet above the ground. These were intended as some kind of offerings to the native gods, and, when newly placed in position (as afterward learned), were sprinkled with tobacco, berries, and other articles. None of these offerings appeared to be of more recent date than two years, while some were so old as to crumble beneath the touch, and others were buried under such a profusion of moss as to be hardly recognizable. Once being placed, it is deemed very sacrilegious ever to disturb them again. Time and the elements, according to their notions, can alone tamper with them with impunity.

At 5 o'clock P.M. Mahood returned, wet and hungry, after a long, hard pull up several small rivers and along the banks, having met with no success; but an hour later one of the Gilaks, who had also been absent all day, brought the welcome intelligence that Yakov and the deer were ten miles distant on the lake, unable to approach nearer on account of the ice, as we had expected. To help them along, we resolved to send our Yakouts and the two Gilaks with *lotkas* early the following morning.

The following brief extract from my diary, referring to the latter portion of our first day in camp, will convey a notion of the weather and our appreciation of it:

"8 P.M.—Rain, rain, rain, and prospects of its continu-

It is very disagreeable, but what else was to be expected of Siberia? Thermometer at night $+40^{\circ}$ Fahrenheit.

"Oct. 24th.—Still raining; but our natives started off for the deer, after catching a nice mess of fish in a neighboring stream for our day's allowance."

To while away the time, Swartz and I took our guns to try and get some birds, but soon returned wet through to the skin, without game. Some of our neighbors, however, brought us several "rapsheaks," or small brown tree-partridges, that abound in this section of the country. A small lump of sugar was considered liberal compensation for them—much greater than they usually receive, I imagine, as they have been infesting our tent ever since, bringing other birds, fish, and "ukale" with which to trade for tea, powder, lead, or any thing we would give them; but we were obliged to discontinue trading for fear of diminishing our stores too much. We could not make them understand that all our supplies would be required for the journey before us, as they carry and consume but little food while traveling.

These people might with propriety be called an aquatic tribe. During the summer months they almost live upon the water, paddling here and there in their lotkas continually. For their food, likewise, both during summer and winter, they rely upon this source nearly exclusively. What traveling they do in winter is accomplished with dogs; but this is very little, their preference being decidedly to lie and vegetate in their dingy, smoky habitations during the cold weather, waiting for the advent of spring before renewing their out-of-door exercises.

These exercises, rowing and fishing principally, are only partial, benefiting merely the muscles of the upper portion of the body. Owing to this fact, it is not uncommon to see men among them powerful and robust about the chest and arms, while their lower limbs are comparatively so small and puny as to convey the impression of deformity.

At 5 o'clock P.M., as we sat in our tent, the cry of "Alane! alane!" from one of the natives outside caused us all to spring to our feet. We had already acquired enough Russian to know that this meant deer; but little time was consumed in finding the door, so eager were we to catch a first

was doing to the great expectations
indulged.

About half a mile distant, picking
rocky beach, approached a long tra
looking animals, most of them white
ly have mistaken for cows at a dista
such a thing as a white deer had never
As they drew nearer we distinguished
the troop was a regular Falstaff's bri
ity was concerned. Most of them we
having brown backs and light-colored b
the band had fine, large, complete antl
der, some had the right horn missing,
the left; a few had both horns choppe
from the skull, leaving a savage-looki
jecting over the forehead, shaped som
hand. These last were all bucks, and w
their horns having been cut off for
rider. There were still others that l
having lost them fighting each other,
the woods.

This was the season for them to sh
from their horns preparatory to their b
ter, and long bloody strings of it hu
eyes and heads of the animals.

days, unless prematurely cut off by their masters, who use their sheath-knives for the purpose. Both sexes have horns, though those of the male are much larger and heavier, frequently measuring six feet in the curve. They begin to shed them in February. I was very much disappointed as to their size in particular, since I had expected to see large, majestic-looking creatures; but their backs are rarely more than five feet above the ground. Their heads without the horns are very much like those of cows, but their bodies are much narrower, elevated upon slight legs, which terminate in broad, large hoofs, the latter also much like those of the cow. The hoof spreads when the animal steps, enabling it to travel more easily over snow and marshes, and when raised for another step the two toes strike together, keeping up a continuous rattle when the animal travels over a hard surface. The male has a thick bunch of long hair under the throat.

Mounted on the shoulders of the leading deer sat a figure dressed in heavy fur clothing, that made him look as large as two ordinary men. As he approached, his body swayed from side to side with each step of the deer, and in his hand he carried a staff which was kept continuously in motion, either thrusting the poor animal in the sides or striking it over the antlers. At the same time, both feet were kept busily employed kicking the sides and chest of the creature, each blow being accompanied by a peculiar "cluck" of the tongue, such as I had not before heard. It seemed very much like working one's passage; yet, in spite of all these demonstrations, the deer could not be made to move faster than a walk. This, after all, did not seem so very strange to us; for, judging from the relative sizes of the two creatures, the man and the deer, it would have been much more appropriate and just for the rider to carry the ridden. Following this leading deer were six or eight others, each fastened to the one preceding it by a halter made of seal-thong, and carrying on its back—or rather shoulders—a very small pack-saddle. Then came another huge fur-covered individual, going through the same motions as the first, and leading the remainder of the deer, amounting in all to twenty.

The boat came up at the same time, containing Yakov, our

they managed to circle the mouth encountering much ice. Four strea this manner.

As the first native dismounted, and or bonnet to salute us, we at once Tungusians whom we had seen at the Nikolayefsk, Mikhaeloff by name. I was an entire stranger to us.

These names are both Russian, he adopted at the time the parties were b Church, as is the usual custom. The dark skins, enormous cheek-bones, and of the Tartars in general, though occ: eyes of a grayish tinge are to be n cleanliness, language, customs, and mo fer materially from their Gilak neighb: the style of dress, for which the same i ever.

This dress is quite simple, made summer and winter use, the latter, of thicker and heavier. The chief articl fur coat, cut something like our own, of out the hood of the Kamtchadales. T body, without other covering. A pai ting skin pants, with the fur inside, cov of the lower limbs, while their feet an

differently-colored skins being sewed together alternately in stripes, and bordered with sable, beaver, or sea-otter.

These people do not allow the hair to grow long like the Gilaks and other tribes farther south, but keep it trimmed tolerably short, with the exception of a long lock on either side of the face in front of their ears. Their habits are purely nomadic. They reside in cone-shaped skin tents, so constructed that they can be erected in a few minutes. (Our own was made after the same pattern.) These, together with their few household utensils, they pack upon their deer whenever game has been exhausted or frightened away from one locality, and the next night may be found as comfortably and contentedly settled in an entirely new region. They subsist altogether by the chase, and upon what few simple articles they receive in exchange for furs from Russian traders, whom they meet annually at some established point. Their territory extends from the Amoor northward to the town of Okhotsk, and westward to the great Lena, though they are by no means a numerous tribe.

Since we would not be able to commence our journey for a day or two, the deer were conducted to a feeding-ground, distant about a mile from camp, and turned loose. Like sheep, they herd together, rarely wandering off. Two or three thoroughly domesticated animals will prevent a large herd from straying as long as food is to be had. They subsist upon a light-colored moss that is found in dry localities growing close to the ground. The country bordering Orell Lake, and extending for some distance to the west and north, being mostly low and swampy, but little of it is produced, consequently reindeer are scarce, either in a wild or domesticated state.

Now that Yakov and the Tungusians had arrived, we no longer needed the services of the two Yakouts who had remained with us since the departure of the Gonets, and, after we had given them a few roubles and a "che-peet" (which means a fill of tea), they took their departure.

They were very loth to go, notwithstanding, and before pushing off in their lotka came to our tent, and after bowing and crossing themselves to the guardian saint of our habitation, invoked its blessings upon us; also, with tears in their

eyes, thanked us for the liberal compensation they had received, as they supposed. I only relate this to show the susceptibility of their natures. By them every house, tent, and habitation of any kind is supposed to be under the protection of a guardian saint. They never think of entering one without reverently uncovering and crossing themselves. This custom is only to be found among those natives who have adopted the Greek faith, the others being very unceremonious. At the leave-taking with our men, all uncovered their heads, and the ceremony of kissing each other three times upon the cheek was performed. This we likewise afterward found to be a common custom both at meeting and parting.

During our sojourn upon the lake we fared quite sumptuously. Our Gilak neighbors, for trifling compensation, kept us abundantly supplied with lake trout, partridges, and cranberries, and, upon the arrival of Mikhaeloff, a fine quarter of venison was added to our larder, to say nothing of deer-milk for our tea and coffee supplied by a doe in the herd. The reindeer meat, though I think a little coarser grained than that of our American deer, we found much more delicately flavored than the latter, and but little inferior to the best beef. The milk, however, was much inferior to that of the cow in flavor, though it contained much more body. A tea-cupful which the doe supplied each night was equivalent, in the amount of nourishment it contained, to nearly a quart of ordinary cow's milk. This small yield was probably owing to irregularity of milking.

The next day was devoted to repacking our stores and arranging them in quantities suitable for loading upon the deer. Each pack-animal was capable of carrying about one hundred pounds dead weight, but no more, with safety. Each riding deer, however, being larger and stronger than the others, could carry a man weighing one hundred and seventy-five pounds with ease, if in good condition, as a rider preserves his own equilibrium, and there is not that constant strain on the beast. Our pack-saddles were made much after the fashion of those used for packing mules in California, but were much smaller, since they were intended to fit upon the fore-shoulders of the beast. Each one consisted of two small

uckskin pads stuffed with moss or hair, and united at the ends by bows made of pieces of deer-horns selected with their natural curves. Between the pads space was left to admit of the working of the deer's shoulders.

The riding-saddle was very nearly the same in appearance as the pack-saddle, with the exception that the pads were a little wider, and stood out more from the animal's shoulders, presenting a broader and flatter surface to sit upon. These pads, by measurement, were one foot in length and fourteen inches in width. No stirrups are used, nor any kind of support whatever for the feet. The saddle is fastened upon the deer by a single girth around the body, and, as before stated, laced upon the fore-shoulder.

While loading or mounting the deer, great care is necessary to prevent any part of the weight from resting upon the animal's back, which is very weak. An apparently slight pressure, Mikhaeloff informed us, would sometimes completely disable the animal. The bridles, or, rather, halters, were made of pliable seal-thong, or braided strands of uckskin, and were formed exactly like our own.

This day we had an opportunity of witnessing one of those remarkable feats of strength of which people frequently hear, but few are permitted to see. In fact, we were somewhat dubious ourselves as to the correctness of our eyesight, nor did we believe until there was no other alternative. The hero of the occasion was Yakov, our Cossack, himself a small man in stature; but, as the feat was accomplished with his teeth and jaws, this, perhaps, is not to be considered. It happened in this wise: While discharging our cargo from the sleds, one of the leather-covered panniers was badly broken. This had to be repaired before it could be used in packing, and we were at a loss to know where to procure nails for the purpose. At length, among our articles, part of a box was found in which several nails were tightly driven, but then the difficulty of extracting these without breaking them off presented itself. Our hatchet was tried, and so was every other means at hand, but without success. Finally the Cossack deliberately kneeled, placing his knees upon the fragment so as to hold it perfectly steady, and with his teeth extracted the only two remaining unbroken. Upon our ex-

pressing astonishment at this, Swartz informed us that most of these people have powerful jaws and teeth. Always, in purchasing an axe, they test its quality by trying to bite the edge off. This test is so effective that they are rarely imposed upon.

CHAPTER VIII.

king up.—Riding Deer.—A Tableau.—Impressive Ceremony.—Yakov
n Danger.—Mounting the Deer.—Mishaps.—The Polka.—Russian Mode
f Riding Deer.—Our Journey commenced.—Disgraceful Fall.—The
Country.—Making Camp.—Tardy Start.—Lassoing Deer.—The Lariat.—
swamp Land.—Cranberries.—Wild Reindeer.—The Birpocoon.—Curious
found.—Refractory Pack-deer.—Mikhaeloff's Cure.—The Yasmall.—
Rain.—Camp.—Hunting Grouse.—Success.—Constantine's Shelter.—
Lungusian Mode of Sleeping.—The Sabbath.—Diluted Alcohol.—Our Vis-
tors.—Eating Hair-oil.—Still Raining.—Making Portraits.—Humanity
n the Wilderness.—Sheared.—Natives.—The Stars.—More Rain.—
Bridge-building.—Luna.

On the morning of Thursday, October 26th, we were all astir
light and early. The day was a little cloudy, but bade fair
turn out well. Nevertheless, had it threatened to rain pitch-
forks and Dutch-ovens, I doubt whether we could have been
 prevailed upon to postpone our departure. The journey was
 fore us, and we were anxious to plunge into it. We had
 et with so many unexpected delays, and the monotony and
 diousness of being compelled to lie closely housed in our
 nt to avoid saturation from the disagreeable drizzling rain
 at had fallen almost incessantly since our arrival on Orell
 ke, had prepared us to submit to any alternative for the
 ke of a change. By the time Mikhaeloff and Constantine
 d returned from the feeding-grounds with the deer, the tent
 as struck and rolled up into a compact bundle, and the
 her packages were tied together in pairs of equal weight,
 ith seal-thongs, ready to be thrown over the pack-saddles
 d girded on.

Then came the distribution of the riding deer. The rest
 d had more or less experience with them, and as Mahood
 d I were anxious to take it a little moderately until we had
 quired the art, the two most gentle animals were assigned
 us. Our supplies were first packed upon the fourteen deer
 ended for the purpose, and afterward top-loads were made
 our bedding, the cooking utensils, tent, and other light ar-
 les that would be required for daily use, so that it would

not be necessary to unpack any of the bundles except for provision until we should arrive at our next destination—Tugur, on the bay of the same name. The scene which presented itself at this time was a very novel and interesting one. The pack deer were fastened one after the other by their halters, in three trains, to be led by Yakov and each of the Tungusians, all of whom stood by their animals ready to mount at the signal. Our Gilak friends were gathered about, with eyes and mouths open, watching our proceedings, and ready to pounce upon our deserted camp in search of fragments of bread and sugar as soon as we should leave it. Mahood, Swartz, and I each stood holding the halter of his deer, having previously searched the camp to see that nothing was being left behind.

In one hand Yakov held a cup of diluted alcohol, anxiously waiting for the moment when he could commence imbibing. Now came the most impressive part of the proceeding. With slow and solemn movement Mahood put his hand under that part of his coat nearest his heart, and drew therefrom a suspicious-looking black bottle that had been reserved for the occasion. A blow with his sheath-knife shattered the neck; the jagged bowl was raised on high, and amid a silence that was awful in its intensity, drank to "absent friends." The admiring assemblage of Gilaks being no longer able to restrain their enthusiasm, burst forth in a subdued smile. It is needless to say that we all drank to that toast. This ceremony affected Yakov so greatly that, in order to conceal his grief, he buried his face in the cup of alcohol, and might possibly have drowned himself in its contents had not Mikhael-off and Constantine, fearing for the safety of their own allowances, rushed forward to prevent the catastrophe. Three cheers were then given; our guides mounted and started ahead, and so might have commenced our journey, but, for various reasons, the rest of us did not get into the saddle. To mount a reindeer is by no means a simple operation for the beginner, so great care being necessary in order not to injure the beast; and, besides, it requires a good deal of agility, which I, for one, did not possess. The rider, to assist him in this process, always carries a staff, called by the Russians "polka." This "polka" is about five feet in length, and near

tom has a small hoop fastened around it by a network of skin thongs, which prevents it from sinking into the snow in winter. A similar staff is also used in snow-shoeing. When mounting the deer, the rider takes the rein or halter in his right hand, which he places on the saddle, and rests his left hand on the top of this staff. Then, with an easy movement, he places his right foot upon the saddle, and, dividing his weight equally between his two hands, springs lightly into the saddle.

But to do this requires considerable calculation, as the rein on the deer's shoulders is very loose; and, should you pull it an inch too far, or not quite far enough, the saddle will tip, in which case there is no alternative but to come to the ground.

Even after being mounted, until one becomes an expert in reindeer-riding, it requires his constant attention to maintain his equilibrium. This looseness of the skin accounts for the odd, swinging motion of the rider already described, and the deer, in walking, by the movement of his shoulder-tips the saddle first to one side and then to the other. To counteract this, when the saddle tips to the left, the rider shifts his weight to the right, and "vice versa."

Knowing these facts, the reader will not be surprised at my failures. Swartz, having more confidence than Mahood, swung a little too far, consequently went entirely overboard. Mahood began well, but was a little too slow; for, when his right foot touched the saddle, his deer started and prevented him from gaining his seat. I failed in my first principles, since I could not kick high enough with my foot over the saddle at all, and, after three or four ineffectual efforts, had to call on one of the guides to help me to my seat. The Gilak children were highly amused at my manoeuvres, as were, in fact, the whole party.

When in Petropaulovski the ispravnik told us we would not be able to ride on deer if we traversed this country, but, as it was something we had never read or heard of before, and we did not think it possible for a deer to carry a man's weight, I supposed he was jesting. He said, however, a Russian of his had made a short journey once with reindeer, and it was necessary to carry two polkas, which he trailed on each side of his deer to prevent his falling off. We did not carry two of them, but neither did we ride without falling.

off, and I doubt whether two staffs would have prevented our tumbling.

We took a westerly course from the lake, which was soon lost from sight, and, after traversing about five versts* of boggy, swampy land sprinkled with "hackmatack" or larch-trees, we arrived at good feed grounds for the deer, and concluded to halt for the night. It was some time since our deer had been last packed, and we did not wish to tire them too much at the start; besides, we ourselves felt like halting, for, though we had not gone very far, the difficulty we had experienced in retaining our seats, and a little soreness resulting from occasional tumbles, made the proposal to camp acceptable to all.

We felt highly flattered by our first experience, for, strange as it may seem, the falls did not average more than one to the verst. One of these, though, I confess, occasioned me some mortification, and did not much enhance my reputation as a rider. The deer was standing perfectly still at the time, which put me off my guard, and, by simply turning its head to one side, I lost my equilibrium, and the saddle turned. The oldest rider frequently falls off; for while sitting on the saddle, the rider's knees are on both sides and above the deer's neck, leaving his feet dangling underneath, without stirrups or any thing by which he can brace himself if once started sideways.

In a very few minutes after stopping our Tungusians had cut twenty or thirty long slim poles, the bases of which they planted in a circle twelve feet in diameter, allowing the tops to lean together in such a manner as to support each other. Over these we spread our tent. Boughs were afterward cut and strewn over the ground inside, upon which to make our beds, a space being left in the middle large enough for the fire, over which our tea-kettle was singing in almost as short a space of time as it has taken me to write this description.

It was our intention to make an early start the following morning, but were prevented from doing so by the wildness of the deer. Some of these had to be lassoed, and our guides found much difficulty in accomplishing it on account of the thick growth of trees that surrounded camp. The *lariat*

* A verst is five eighths of a mile.

used for the purpose is a long thin line cut from a sealskin, and made pliable by being kept well oiled. It is very strong, though strength is not so very essential, as these deer have all been lassoed so much that they yield without further ado the moment the line strikes their antlers. As with our native Californians, the lariat is deemed an indispensable article among the Tungusians.

After the wildest animals had been secured, lassoes were then stretched from tree to tree in a semicircle, forming a corral, into which the remainder were driven. The country we were traversing, though naturally soft and swampy, was made doubly so by the recent rains, and our deer, burdened with heavy loads, frequently sank to their knees in the mud and water. During the greater portion of this day's journey we were unable to ride on this account.

We continued a westerly course through a flat, monotonous country, where no trees were to be seen but larch (which were abundant), except as we approached some water-course, on the banks of which grew a few white birches. Portions of the route were literally covered with cranberries, and two or three wild deer were seen during the morning. About 12 o'clock we struck a small rapid stream, called by our guides the Birpocoon River. Up this we traveled through a pass in a range of low hills, beyond which we found ourselves in a narrow, marshy valley, through which the Birpocoon flows. At noon we stopped to make tea, and after a short rest, pushed on up the stream, our trail occasionally leading along the hill-side, when we would seize upon an opportunity to ride a short distance.

At 5 o'clock, cold, tired, and wet to our waists, we pitched our tent on a dry spot, adjacent to deer-feed, for the night. Near our tent was a singular oval-shaped mound, composed of loose stones, on the top of which grew two quite large sackmatacks. It was thirty feet long and seven feet high, perfectly isolated, and had such a regular and artificial appearance that I was inclined to believe it to be a large grave, similar to the Indian mounds, or tumuli, of our own country. If so, many years had elapsed since its construction.

During the day one of our pack-deer had been causing us much trouble and delay by tearing the load from its shoul-

ders with its right antler. At night, before letting the creature loose, Mikhaeloff assured us that he would obviate the difficulty, but how he would effect it we were all curious to know. When the trains had been unpacked and freed, he led the culprit animal up to a good-sized larch-tree, and, with his lasso, proceeded to bind its head to the trunk in such a manner that the natural curve of the antler encircled it, fitting it quite snugly. This completed, with his hatchet, which was not over sharp, he chopped off the horn, the operation occupying some minutes. Other than from the jarring made by the blows, the deer did not seem to experience any inconvenience until after it had been loosened from the tree, when the preponderance of weight on the left side of its head caused the creature to run in a circle for a half hour, which time elapsed before it recovered from its fright.

At 10.30 A.M. the following day we forded a small stream, called by our guides the Yasmall.* This stream flows east, and empties into the Amgoon, a large branch of the Amoor.

At noon rain set in upon us, and, finding good feed for our deer near at hand, we decided to camp until it should subside. This precaution we had to adopt to protect our stores, many of which were of a destructible nature, and only secured in canvas bags. The country traversed during the forenoon was the same as that of the previous day—low, swampy, and detestable. We left the Birpocoon early in the morning, keeping a northwesterly course.

As soon as we had camped and partaken of some tea, Mikhaeloff, who had a great reputation among his tribe as a hunter, started off with two of the best deer after game. For want of better occupation, I donned my rubber poncho, and, taking Swartz's shot-gun, also set out to try and make some additions to our commissariat, which was, by this time, pretty nearly exhausted, as far as fresh meat or game was concerned. In about two hours' time I returned to camp, having shot a large bird of a species I had never seen before, though Swartz called it a grouse. The following description will, perhaps, enable ornithologists to classify it:

* For the names of rivers and mountains employed in the following pages, I depended entirely upon our Tungusians, except where Russian names could be obtained.

The bird measured twenty-seven inches from the point of the bill to the tip of the tail; three feet from the tip of one wing to that of the other, and the girth of the body was fifteen inches. It was a female, and would weigh about five pounds. The bill was short and black, and slightly beaked; eyes and feet were also black; legs were short, and covered with feathers to the feet; color brown, dappled with small black and white spots. The male, Swartz informed us, is almost black, and has a small red line over each eye.

Upon returning to the tent, I found that Constantine had been busy constructing a shelter for himself and Mikhaeloff, ours being only large enough to accommodate four persons. It was a very scanty habitation, consisting of a dozen small poles ranged in a half circle, and covered with deerskins, to shelter the occupants from wind and rain. The covered space seemed hardly large enough to protect one boy, much less two men; but the Tungusians, in sleeping, roll themselves up in a very small space, doubling their knees up to their chins, and laying with their backs to a large fire which they build in front of their shelter. Their only bedding consists of a small deerskin to lie on; for covering, they take off their fur coats (only one being worn by each person) and spread them over their shoulders, leaving their bare backs exposed to the fire. Except in rainy weather, however, a person would want nothing better than this simple protection, provided he had plenty of bedding.

Mikhaeloff did not return until 5 o'clock. He saw no deer, but brought in three large birds similar to the one I had shot; so our stock of fresh meat was sufficiently large for the time being.

October 29th was our first Sabbath in camp; it still rained too hard to admit of traveling without injury to our supplies. Notwithstanding it was the Sabbath, the six idle, healthy, and hungry individuals that constituted our party made such fearful inroads upon the stock of grouse on hand, that it was deemed advisable to try and secure other while we had an opportunity, and, with that aim in view, Swartz started out. They were excellent eating, and we in excellent condition to enjoy them. Though several had been shot and many others seen, there was not a male among them.

After leaving the lake, we had made it a practice to dole out rations of diluted alcohol to each of our men twice a day and even in this short time they had learned to look upon these allowances as among the conditions of their agreement with us. About the customary hour this day, as we were sitting in our tent, the entrance slowly opened, and the shaggy head of Mikhaeloff immediately became visible. His errand was at once guessed, but no allusion was made to the liquor, and, after sitting some minutes, he arose and left the tent, evidently disappointed. In two or three minutes Constantine appeared in the same manner, but, being a little curious to know what would be the result, we still feigned ignorance of the object of their visits. At length, becoming tired, Constantine also arose and left. After this visit we heard the two outside engaged in low conversation for some moments, which was immediately followed by the appearance of Mikhaeloff at the tent door. This time he was all smiles and brought a bladder of some white, greasy-looking substance, which he insisted upon our accepting as a present. We were unable to converse with him, Swartz being yet absent, consequently could form no notion of what the bladder contained. Mikhaeloff saw our hesitancy, and for a moment thought that even this ruse would fail in producing the alcohol; but then his face suddenly brightened again, and, taking a piece of bread, by signs he made us to understand that the substance was a substitute for butter. "What do you suppose that is, Bush?" said Mahood, turning toward me with a dubious expression of countenance. "Don't you think we had better try a little for the sake of curiosity?" I assented to the proposition, and, greatly to Mikhaeloff's satisfaction we commenced the repast, having previously pledged each other to swallow every thing that passed our lips, by the way of preparing our stomachs for future ordeals. The taste was undefinable, though not particularly disagreeable. We continued the eating for a few minutes, when Swartz returned, and Mikhaeloff pressed him to partake. A shake of the head, accompanied with a shrug of his shoulders and a drawing up of his nose in a manner indicative of disgust, caused both Mahood and myself to cease chewing, and with one breath to ask what on earth it was. "Hair-oil! hair-oil!"

; "it's bear-grease." Each fixing his eyes on the prevent deception, with a difficult gulp the half-morsels vanished, and we gave the Tungusians no without farther ado.

aking on the morning of the 30th, the first sound ed our ears was produced by the rain-drops, which ued to bespatter the tent. It was an unwelcome t, there being no other alternative, we quietly re-selves to another day's delay. This shower, or rm, we sincerely hoped would be the last of the l that cold weath-ollow and freeze gs so that travel- l be better. As as, our heavily-er could with dif- along at all, to g of our own dis- being obliged to vade throughout journey.

it of better pas- suaded Mikhael- for his portrait. r had never seen



MIKHAELOFF.



CONSTANTINE.

a mirror in his life, and I dare say had no conception of the amount of ugliness exhibited upon his countenance. At any rate, upon seeing the picture, he manifested no delight, though Constantine was very much elated, and could not rest contented until I had secured his picture also. But alas for the weakness of humanity! Though Mikhaeloff was the pleased one this time, poor Constantine

was terribly crestfallen. The pictures seemed to have awakened in their minds strange revelations, and they retired from the tent in a very thoughtful mood, each trying with his hands to smooth down his neglected locks. Presently Constantine had occasion to borrow my scissors, and shortly afterward the two returned, with scarcely a vestige of hair remaining on their heads, and implored me to make other likenesses.

During the day our larder was replenished by two more grouse and a ptarmigan, or arctic partridge, the first we had seen. At 9 P.M. stars once more appeared in the heavens, a sight which we hailed with joy, as our patience had become well-nigh exhausted, and we retired to our spruce beds fully expecting to renew the journey on the following morning.

"*October 31st.*—In camp. The elements have lost their reason. Evidently forgetful that it has been raining almost incessantly for the week past, they are favoring us with some rain. No hope of departing this day."

During the afternoon, while hunting, Mikhaeloff discovered that a small stream a mile ahead of camp had become so badly swollen by the late rains as to require bridging; and we immediately started him and Constantine off to fall trees across it. At 9.30 P.M. the moon favored us with a glance at her benign countenance.

CHAPTER IX.

-Flooded Marshes.—Bad Traveling.—Poor Deer.—Labor of A Race.—Impressions on Deer-riding.—Yakov's Ingenuity.—A t-jack.—Maimed Deer.—Old Man's Head.—Mikhaeloff's bad —The Mystery solved.—Mahood's Mishap.—Deer-doctoring.—n.—Snow.—Contrast.—Vanguard of Winter.—The Chimchahé Male Grouse.—Tungusian Mode of Hunting.—Mikhaeloff's —The Remedy and Effect.—Our Camp.—Sable Grounds.—The First View of Usalghin Bay.—The Sololoucan.—Long Day's —Broken Thermometer.—The Usalghin River.—Curious Mud —Ptarmigan and Cranberries.—Departure of Guides after a isolation.—No Boat.—Shelters for Deer from Musquitoes.—A Night.—Luxury and the Price.—Bridging.—Sol's Condescending the River.—A pretty Sight.—Better Traveling.—First —Ten Degrees Fahrenheit below Zero.—Tracks of Wild Ani-gusian Trail.—Deserted Camp.—Death of the Deer.—Caché. Honesty.—The Ulban.—On the Ice.—Frozen Lakes.—Crystal —The Seran.—Jivarack.—Tugur Valley.

peated disappointments we had experienced each upon emerging from our tent, to find it raining, had us to expect nothing else, and it was not without surprise that, early November 1st, we found the ground without snow, and the weather suitable for the renewal of our journey. But little time was lost in assembling the guides, striking our tent, and at a reasonable hour we were on our way through a vast overflowed marsh toward the new bridge our guides had constructed the previous day. This consisted merely of two large logs felled side by side across the deep but narrow stream. One of these, however, had been swept away by the increased volume of water during the night, which fact, together with the uninvited prospect of an endless lake to be traversed beyond the bridge, induced us to seek another crossing and better travel up the creek. Failing in this, we retraced our route for an hour and a half of delay, to the first place, and then effected a crossing by swimming the deer and the loads across on our shoulders over the remaining swamp beyond our deer frequently sank to their

bellies in mud and water, and at the very outset we all became thoroughly wet through—by no means a comfortable condition with the temperature at $+30^{\circ}$, as was the case this day.

From camp our course was nearly due west. Several other swollen streams and flooded marshes had to be crossed during the day; in fact, these covered nearly the whole country, which was of a mossy, spongy nature, and perfectly saturated by the recent rains. With each step, even where we considered the traveling fair, ourselves and deer would sink nearly to the knees, and, upon the withdrawal of our feet, the tracks would instantaneously fill with water. With such experiences, it will not be considered surprising that, by this time, we had become disgusted with reindeer-riding, and, in fact, every thing connected with the beast. Our train was a very poor one, though, comprising both aged and blind, but the country could afford no better.

Our riding was limited to less than one quarter of each day's journey, but, even when mounted, the strenuous efforts required incessantly to keep the beast moving at all afforded but little relief after walking. Not only did we find it necessary to keep both legs continually going kicking our animals, but even the polka had to be used freely over the deer's horns, and our tongues had no rest. The reindeer—that noble beast we had always associated in our minds with the hurricane, greased lightning, and things of like velocity—we found, in reality, to be among the laziest of God's creatures. No efforts on our part could induce them to go faster than walk.

This was thoroughly demonstrated in a race between Swartz and myself, mounted, with which we tried to enliven the day's journey. During the exciting affair both of the natives and the Cossack were dismounted, and walking behind our deer, poking them about the rumps and sides incessantly, and ourselves using every effort with both muscle and lungs, which ought, at least, to have frightened them; but was useless. They would not go faster than a walk. At the time I could hardly rid myself of the notion that the beasts were cows, their heads being very similar, particularly the riding animals, whose horns were cut off close to the heads.

and I confess to feelings of compunction in mounting them. Their frail backs and whole general appearance would seem to indicate their unfitness as beasts of burden, however applicable to draught purposes. Each time, upon seeing them loaded down with boxes and bags, or carrying great, healthy humans, it seemed a downright imposition—as though man, conscious of his power, was subjecting the poor beasts to purposes for which they were never intended by the Almighty. But yet the reindeer is all in all to these Northern tribes, particularly in mountainous countries, where dogs can not well be used, or food for them procured; they could be illy spared.

At 1.30 P.M. we came in sight of a range of mountains higher than any we had before seen in the vicinity of the Amoor. They were about fifteen versts south of our trail, and attained an elevation of nearly three thousand feet. Before camping, Mikhaeloff shot one of the large grouse for our supper.

This had been the hardest and coldest day's journey we had yet experienced. It is easy to realize the delight we all experienced as darkness settled upon the land, and with what relish we enjoyed our comfortable little tent, the glowing camp-fire, steaming hot tea, and consoling pipes. We had been wet since morning, and, as a natural consequence, our feet were swollen and boots shrunken to such an extent that we despaired of getting them off at all. No plan our ingenuity could devise would answer. When all had failed, our invaluable Yakov came to the rescue, and by the application of his teeth to the toe of each boot (which were fortunately long), aided by his hands at the heels, effected his purpose with surprising ease. Poor fellow! He would deserve pity should he find it necessary to have a tooth extracted.

At 8 P.M., thermometer $+26^{\circ}$ Fahrenheit. November 2d was equally as cold and the travelling quite as disagreeable as that of the previous day; so much so, in fact, as to cause one to lose complete control of his tongue, since "from the fullness of the heart the mouth speaketh," or words to that effect. To add to the disagreeableness of the journey, upon lassoing and coraling the deer, it was found that through some mishap Swartz's animal had become badly lamed dur-

ing the night. This, we feared, would seriously impede our journey unless, through good luck, we should encounter some Tungusians on Usalghin Bay, and be able to replace the maimed animal. On this, however, we could not rely with any certainty.

During the day "Old Man's Head" came into view—a mountain peak so called by the Okhotsk whalers, and situated on the shore of the Okhotsk Sea. This peak, which attains an elevation of nearly 3000 feet, was attired in its fresh winter garb, and, looming up against the dark heavens beyond, was surpassingly beautiful, and served greatly to relieve the drear monotony of the flooded swamp-land we had been traversing.

Mikhaeloff, much to his own mortification as well as our surprise, during the day fired twice at a large male grouse, missing both times. This ill luck was so at variance with his usual success as to cause him much anxiety. His superstitious nature would not allow him to account for it in any other way than as just retribution for some ill deed. Whether intentional or not, he thought the punishment would have been the same; and for some hours he rode or walked moodily along, trying to account for the occurrence. At length he brightened up, having discovered the cause, and exultantly rode back to explain the matter to us. It was his firm belief that his ill luck was all occasioned by the fact of his having shot the head off the last bird he had killed. This superstitious notion amused us all very much; but, as he seemed to derive such evident satisfaction from the solution of the mystery, we allowed him to enjoy it in ignorance.

As night approached it grew uncomfortably cold. Our wet feet and legs occasioned us much discomfort, so much that we were scarcely able to ride. Violent exercise we found necessary in order to keep up the circulation of our blood. A half hour before camping Mahood became the victim of misplaced confidence—in his ability for riding deer. He far surpassed me in the art, and, in fact, had retained his seat so well during the journey that he felt encouraged to attempt a little fancy riding. On this occasion, upon reaching a deep, narrow stream, and disdaining to dismount, he essayed to jump his deer across. With unexpected agility, the beast

made a furious bound, springing entirely from beneath the deer, who fell bodily in the cold stream. Fortunately, good deer-feed was close at hand; a roaring camp-fire soon restored him to warmth. By night Swartz's deer was in a pitiable condition, scarcely able to walk; but a careful rubbing with alcohol appeared to ease it very much. Upon expressing our fears to Constantine, the proprietor of the beast, that we might have to kill it, he manifested the greatest indifference, and only replied that he didn't care, as he had borrowed it from his son for the journey, and he would lose nothing.

All during the next day we were kept closely housed by a heavy rain-storm. The application of alcohol had greatly benefited the lame deer. We entertained hopes of its recovery most entirely by the next morning.

"*Nov. 4th.*—We were greeted this morning with a sight that cheered our hearts. The boughs and branches of the surrounding forest, among which were a number of firs, were ordered and bent almost to the ground with ponderous masses of snow, and the ground was clothed in a raiment of the same material to the depth of eight inches. It seemed quite strange to awake and find the whole aspect of nature suddenly and quietly changed. Our deer, that last night were easily distinguishable among the black trunks of trees and dark masses of foliage by their white color, looked yellow and dingy contrasted with the pure whiteness every other object had assumed. It may seem strange that these indications of the rapid approach of grim winter should afford us much satisfaction; but we had learned by this time to think any thing would be preferable to the present condition of traveling. At daybreak, the weather having moderated, a light drizzling rain began to fall, but at 8 A.M., when it ceased, we immediately began preparations for our departure, intending to go at least as far as a river Mikhaeloff said would have to be bridged, about five versts distant. After a little more than an hour's travel, all the way through bogs, we arrived at the stream called by the Tungusians 'Chimchagalee.'"

The bogs were slightly crusted over with ice, but we broke through into the water at every step. The Chimchagalee we found about twenty feet wide at this point, and quite rapid;

but the waters had subsided so that we found a fording-place much to our gratification. This stream is also a tributary of the Amgun. On each bank the traveling was very hard on account of deep water-holes and fallen trees. Shortly after fording the stream we were favored with good hard traveling for a verst on high ground, but almost immediately descended to the swamps again.

The wooded hills on each side as we advanced gradually approached each other, and by night we hoped to reach the head of the valley. Trees were also more abundant, and of a larger growth, comprising larch, spruce, and fir. On the road Swartz shot a cock-grouse, weighing about five and a half pounds: it was the first we had seen. The head was black; neck of a greenish tinge, and the back brown, sprinkled with small gray specks. It had a large fan tail, six or eight of the upper and shorter feathers of which had a white band across them near the tip. The upper lid of each eye was red. We always find these birds upon the ground near water, but, when startled, they fly up into the nearest trees. Our Nimrod—Mikhaeloff—invariably takes a deer with him while hunting, and, by keeping behind it, can approach very near to his game, which does not take fright at the deer. He has a favorite animal trained for the purpose. This he also uses as a decoy for wild deer.

About 3 P.M. Mikhaeloff came up shivering as if with an ague-fit, and asked us to camp soon. He had been wet since morning, and we were afraid he would be sick, so gave him a large drink of diluted alcohol, and told him to start for the nearest deer-feed, which we reached in about an hour.

Our camp at night was the most pleasant we had yet had being situated on a hill-side in a beautiful wood of fir and spruce trees: some of the latter were nearly two feet in diameter. After clearing off the snow, we pitched our tent and covered the ground with a thick layer of green boughs as usual, by which time tea was ready, and we entered into the enjoyment of the only luxuries a day's journey affords us—half a dozen cups of splendid tea, and a good smoke while supper is preparing. Before retiring we gave Mikhaeloff another large drink, which drove away the chills, but he hardly knew which end he was standing upon afterward. He had

came very devotional, and, falling on his knees before us, bowed his head several times, Hindoo style, till it touched the ground, all the time muttering how faithful he intended to be to us, etc. 7 o'clock A.M., $+24^{\circ}$ Fahrenheit.

The next morning the thermometer indicated $+22^{\circ}$ Fahrenheit. We succeeded in making an earlier start than usual, and had just enough swampy travel to make us wet and uncomfortable. After fording two small streams we began the ascent of a wooded ridge that separates the tributaries of Orell Lake and the Amoor from those streams emptying into Usalghin Bay, a place well known to whalers. This ridge was an old camping spot of Mikhaeloff's, and we passed a number of Tungusian tent-frames still standing; these were built the same as our own. This divide is considered very good "sable" ground. From the summit we had our first view of Usalghin Bay, distant about ten miles in a northwest direction. On the farther side a high mountain range reared its snowy peaks far into the heavens, backed by heavy black masses of threatening snow-cloud. From the foot of the ridge to the sea-shore extended an unbroken moss barren, or tundra, through which wound the Sololoucan River of the Tungusians. We had to traverse this barren, facing a cold northerly wind. Upon nearing the bay our course was changed to a more westerly one, leading across the Sololoucan and two other streams that empty into it. After traveling forty versts, the longest day's journey we had yet made with deer, just at dark, wet, cold, and worn out—both men and deer—we came to a forlorn little stream mournfully winding its way through the barren waste, and camped, having nothing but our light canvas tent to shelter us from the cold wind that swept down upon us in squalls from the bay, scattering large flakes of snow before them. We had met with an irreparable loss the previous night. Yakov stepped upon our small Fahrenheit thermometer and broke it; but, thanks to the foresight of our friend Captain Belsoif at Nikolayefsk, we had the large Reaumur left, which, though not so convenient, answered our purpose.

At 11 o'clock A.M. the next morning, after numerous tumbles and the hardest kind of travel over the swampy barren, we arrived at the banks of the Usalghin River at a point

about five versts above its mouth. On the route we encountered some very curious mud hummocks, quite large, of oval shape, and rising from three to ten feet above the swamp. They were crusted over sufficiently strong to support us, but with half a dozen taps of my staff I penetrated the crust of one through; I could find no bottom; it was filled with very thin black mud. They were not of very recent formation, being literally covered with cranberries about the size of buckshot, upon which dozens of arctic partridges were feeding. These birds were very shy, and could hardly be seen against the snow; however, Swartz got two of them.

The Usalghin is about two hundred yards wide at this point, and, being too deep to ford, we immediately started Mikhaeloff and Constantine to its mouth to try and find some Tungusians or Gilaks, from whom to borrow a boat to enable us to cross. In the mean time we pitched our tent on the river's bank. Our morning's journey was over one of the most dreary, desolate countries I ever beheld. On either hand extended the vast, treeless, swampy plain, as silent as death itself. No signs of life were visible except those afforded by the presence of our train. But, as we advanced, sounds reached our ears which, though relieving the awful silence, only added to the dreary desolation. These increased in volume until we found ourselves standing upon the banks of the Usalghin, whose mad waters, aided by the retreating tide, were rushing furiously onward, winding through the barren plain, and carrying on its bosom large sheets of ice, crashing and grating together, and undermining the steep mud banks. Now and then, tons' weight of this mud would fall in the seething tide, crushing the thin ice, and causing the stained waters to boil and foam like a huge caldron.

At 3 P.M. the guides returned and reported having found no one. Now our only alternative would be to ascend the stream until we could effect a crossing; but, it being late in the day, we decided to remain where we were for the night.

All about our camp were small poles arranged like miniature tent-frames, beneath each of which were the remains of fires. These, our men told us, were erected by a party of natives to protect their deer from musquitoes in summer. The deer take shelter in the smoke, the frames being erected

prevent them from burning themselves. That night we dined. Stewed grouse, as tender as chicken, with cranberry sauce, excellent tea, and rich reindeer-milk, we found none too good for our palates.

It is very pleasant, after the day's journey is ended, and one's clothes well dried by the camp-fire, to throw yourself down carelessly upon your blankets, with a mind unfettered by considerations of appearances, and to indulge in a good joke and chat, while the rich savors of the evening meal play coquettishly about your sensitive nostrils. How one's appetite feeds and fattens upon these delicious odors, and with what relish and gusto he can apply himself to the meal when ready, only those who have been similarly situated can realize. But these exquisite moments were dearly bought in our case. We had to pay the cost of many long, cold, tedious, damp, and disagreeable hours of travel to arrive at the proper condition for a full enjoyment of them.

The next day we took a southwest course up the Usalghin river. After bridging five of its tributaries and making only twenty versts, night overtook us and we camped. The day had been quite cold, and our boots and buckskin pants were frozen stiff. Other than this, there was nothing worth recording, except, perhaps, the fact of this having been the first day the sun had deigned to shine upon us since leaving Nikoyefsk.

By 10 A.M. the following morning we again struck the Usalghin at a point where it did not exceed two hundred feet width, though the water was still very deep. Here we resolved to try and effect a passage, and immediately set to work to build a raft by lashing logs together with seal-thongs. By making several trips we conveyed across all our packs, the swiftness of the current making it necessary each time to tow the raft some distance up stream before starting; and afterward swam the deer. It was a pretty sight to see the sheep crossing in a body, with their fine heads and antlers raised above the water.

November 9th we crossed the divide between the rivers emptying into Usalghin Bay and those flowing into the Ulin. The country was of the same nature as that surrounding the Usalghin—extensive swampy barrens, intersected by

small streams, and growing a few larch-trees and dwarf pines, called by the Russians "kedrovník." The traveling was better, however, there being fourteen inches of snow on the partly frozen swamps. This was the coldest day we had thus far experienced, the thermometer indicating -2° Fahrenheit. Mikhaeloff froze his toes, but not badly. I suffered much less than previously, having exchanged my leather boots for tobassas, which I managed to keep dry.

On the morning of the 10th, the spirits in our thermometer sank to -11° Fahrenheit. All day long our noses and ears troubled us a little. We saw fresh tracks of wild deer, wolves, foxes, sable, otters, and hare during the day, but no wild animals except small field-mice; these appeared perfectly happy diving through the soft snow.

In the afternoon we struck the fresh trail of a band of Tungusians with deer, evidently a band of hunters, as their tracks came from a direction little frequented by these people, Mikhaeloff informed us; they had gone the direction we wished to take, so we followed their trail, hoping to overtake them and to procure fresh deer-meat; also deerskins to sleep upon, as our blankets were beginning to prove inadequate to protect us from the increasing cold. A few versts farther we reached their camp, which had been vacated that morning, since smoke still rose from the ashes of their camp-fire; but, much to our disappointment, their trail led off our course, and we thought best to abandon the chase. At night we camped at the foot of the Ulban Hills, a wooded ridge running north and south.

During the last two or three days our lame deer had been failing so rapidly as to become useless for the road, and our supplies being sufficiently reduced to enable us to dispense with one animal, the guides decided to kill this one for food. Besides, it could be easily spared, as there was one other deer in the band trained to riding. We purchased half of the meat for road use, and the remainder our guides cached for their return trip, by burying it in the ground, and rolling heavy logs over the spot to protect the meat from wolves and foxes. This, however, is not their usual method of caching. Generally they erect a platform upon the stumps of four trees, which serve as posts, cut off about eight feet above

and, and then build upon this a small log pen large for these purposes. These deposits are often left for without fear of molestation, which speaks well for the of the people, though a theft could be easily perpetrated these wilds without the slightest fear of detection. Standing the natives are so scrupulous about molest-ché, they will once in a while rob each other's traps, ward learned, though as a tribe they deserve great or honesty.

Following morning, a verst from camp, we reached the river, a stream at this point one hundred feet in width. recent high water it had frozen over, and, as the water subsided, the ice had also settled, leaving a steep icy descent on each bank about ten feet in height. One of these to descend to reach the level of the river, and it was no easy sight to see our deer as they slid down and piled in a confused mass at the bottom. Once on the smooth ice they were utterly helpless, wholly unable to retain their footing. Each one had to be dragged separately by the horns from the opposite bank. But then came the difficulty. How were we to get them up the icy acclivity to the shore? We could not tell, since with our smooth-bottomed toboggans we ourselves were unable to climb up, much less to help the deer. At length Mikhaeloff conceived the idea of using an old stump on shore, by which means two or three of us hauled ourselves up, and, by grasping each other's hands, the upper one seizing hold of a sapling, we formed a chain which extended to the bottom. Each deer had then to be hauled up hold of and dragged up in turn.

After crossing this stream we struck another Tungus trail going our course, so followed it. Having crossed a dozen barren, we came upon their vacated camp, situated at the base of an isolated hill, which rose about five feet above the plain. At this point we were obliged to take a southwest course to avoid another large stream, as it was as yet not sufficiently frozen to admit of our passing on the ice. Had we reached this barren a few days later we would have found it nearly impassable on account of numerous lakes that cover nearly the whole surface. These lakes were frozen, and, being covered with a thick coating of

beautiful frost-work which prevented the deer from slipping the traveling was excellent. This frost-work carpet was perfectly superb in beauty. It consisted of innumerable transparent, leaf-like crystals standing on edge, most of them two inches in height, and sparkling in the brilliant sunlight like sea of gems. The jarring produced by the tread of our deer caused them to break off and fall upon the ice, creating a sound as of a thousand tiny glass bells. These sounds had a subdued tone, as if reaching from a long distance, and it was some moments before I could detect their source.

After traveling about thirty-five versts, we camped in a freshly-vacated Tungusian encampment on the bank of the Seran, a small, frozen river. Here we found a meat deposit or caché, erected upon four posts, as already described. The ready-erected tent-frames enabled us to make camp with but very little difficulty.

The next day, Sunday, November 12th, we passed the Seran and two other small streams, still following the trail of our Tungusian predecessors; this led us through a pass in the Jivarack range (so called by our guides), emerging from which we found ourselves in the valley of the Tugur River, where we camped, ten miles from Tugur, our first destination.

CHAPTER X.

Tugur.—History of Tugur.—Early Settlement.—Cossack Ad—Tungusian Encampment.—Beauty and Indifference.—Cossack of Riding.—The Contine.—Tugur.—Disappointment.—The sole Inhabitant.—Tugur River.—The Hut.—End rney.—Yakout Settlement.—Hospitable Reception.—The Yakoutsk.—Torbassa.—The Samovar.—A Lily in the Desert.—Starasta.—Bargaining for Deer.—Vassilly and Eoff.—Purthing and Bedding.—Fresh Beef.—Smoky Tent.—Departure off and Constantine.—A Love Mission.—A big Price.—Court-riage among the Tungusians.—Our tipsy Friends.—Off again. can.—Snow-storm.—Weak Eyes.—Our new Deer.—The Mal-deep Snow and difficult Traveling.—Snow-shoes.—Yakov's Curiosity.—Natives in Distress.—Amusing Scene.—Arla Hills. ow.—Deer-trail.—Gradual Ascent.—Natural Amphitheatre.—d dangerous Climb.—Avalanches.—Our good Fortune.—A glo.—The Descent.—Difficulty in Mounting.—Provoking Experi-n Camp.—Stampede of Deer.—Poor Eoff!—The Arla.

At all astir bright and early the next morning, and on reaching Tugur that Mahood, Swartz, and my-Constantine, started in advance, without breakfast, Yakov and Mikhaeloff to come on with the remainder and the supplies. The idea of sitting down with white men, in a house, had destroyed all relished deer-meat and tea in our tent, so we concluded that we should reach the station. Tugur, situated south of the Tugur River, is a whaling station, a company of which Captain Lindholm (whom we remember we left behind at Nikolayefsk) is one of the principal members. This company carries on the whaling from shore, sending out boats in summer to kill which they tow ashore to cut up and try the oil out also catch grampuses for their oil in large seal-stretched near the beach. About sixty men were employed about the place, these being mostly Ya-

For the journey to this place that we fitted out in k, having been assured that we could renew our

supplies here. We were also anxious to secure fur and clothing for the continuance of our journey, as our small stock insufficient.

The Tugur River was one of the first known to the Russians in Eastern Siberia. Here they had a small log from which they operated against the Chinese on the Amur long before the lower part of that river was at all known to them. How they first reached this point I am unable to say, but it is known that one Khabarov, a very daring and enterprising Cossack leader, was at Tugur as early as the



TUNGUSIAN MAN.

1650. About this time the fort was destroyed by the Tungusian tribes in the neighborhood, and was rebuilt in 1653 by the Cossacks, who found their way hither with the hope of enriching themselves in the fur trade, having heard false reports concerning the abundance and rare quality of the furs and other fur-bearing animals in this vicinity. - Re

of the early expeditions and discoveries of the Cossacks in this section are replete with the daring adventures and intense sufferings of the earliest explorers. It was not an uncommon occurrence for whole bands of them to starve to death, or be massacred by the natives. At times the desire for gain induced these parties even to wage war with each other in the very face of the common enemy. Ravenstein, in his work entitled "The Russians on the Amoor," enters quite minutely into the details of the exploits of these early



TUNGUSIAN WOMAN.

Cossack freebooters. But the object of this journal being to exhibit the present condition of the country as we found it, I will continue my narrative.

After going a few versts over a very rough, barren tract, dotted with small lakes, upon turning a knoll we suddenly came upon the encampment of the Tungusians whom we had

been following since the previous morning. The party consisted of two men and two women, with twelve deer. They were just starting for Tugur as we came up, so we accompanied them. The men were young and better-looking than our guides, but the women attracted our attention more particularly, as they were the first females of the tribe we had seen, and one of them was quite pretty. Their round faces, clear olive complexions, with rosy cheeks and soft black eyes appeared quite attractive to us after seeing those filthy Gila on Orell Lake; and one great charm about them was, that they had just washed their faces. The pretty one had a really coquettish look, but, in spite of all our efforts to form an acquaintance or get into a flirtation with her, we could not provoke a smile or the slightest acknowledgment. She appeared wholly indifferent as to our presence, but immediately made friends with Constantine. "There is no accounting for taste."

Their dress was clean and neat, consisting of a large, comfortable reindeer-fur coat, pants of the same material coming down to the knees, very large and loose, and handsome little fur boots meeting their pants at the knee, and ornaments with beads at the top. On their heads they wore peculiar shaped fur bonnets bordered with beaver, also ornaments with beads, besides strips of scarlet cloth. Their long black hair was carefully parted, and hung down the back in two braids. Very small deerskin mittens and large silver earrings completed their costume. They rode astride the deer, which they mounted and managed with praiseworthy grace and ease.

We soon reached the Contine River, a stream about three hundred feet wide, and completely frozen up, the ice being a foot in thickness. This river empties into the Tugur about a verst above the mouth of the latter. Near their junction is the station. The Tungusians told us on the way that the station had been deserted, but we were satisfied to the contrary from Captain Lindholm's statement. We were doomed to be disappointed, however, for, upon arriving at the small group of one-story log buildings, not a living creature was to be seen. The best house—the officers' quarters—we found locked, and upon the door was tacked a note addressed

Captain Lindholm, saying that, for want of supplies, late in the fall the party had vacated the place and gone to Mamga. Mamga was another whaling station about one hundred versts farther up the coast, and had been formerly occupied by the Russian-American Company.

This condition of affairs was not only disappointing, but a little alarming, as we were about fifteen days' journey from our next destination, Algasee, near the mouth of the Onda River, and we feared that our supplies would not hold out. Fortunately, we had brought a surplus of many of the articles. Tugur was also the place to which Mikhaeloff and Constantine had agreed to carry us, and by no inducements could we prevail upon them to go farther, as they were anxious to return to their homes to hunt sables. The commencement of winter is the best time for sable-hunting, and, had we forced them to carry us to Algasee, more than a month would have elapsed before they could have returned even to this place, thereby losing the best hunting season.

In a little hut near the station we found an old blind Tungusian woman bending over a few embers in a rude fireplace, the very picture of desolation. The sound of our voices appeared to be most welcome to her. She was not contented until she had shaken hands with each one of us, at the same time repeating, in a prolonged singing tone, "Isdrastvitchie," the Russian salutation. (I will not vouch for the proper spelling of that word.) She remained alone daytimes only, she informed us, the place being left in charge of her son, who lived with her.

From her we learned that a hut was standing on the opposite side of the Tugur, four or five versts off, where an employé of the Company lived, and took care of a few cows belonging to the Company. After bidding the old woman good-by, we started on for that place, guided by the Tungusians, first sending Constantine back to direct Mikhaeloff with the deer.

We found some difficulty in recrossing the Contine on account of the tide, which had come in while we were talking with the old woman, and had raised the ice with it, leaving water channels on each side. The Tugur was a fine large stream, nearly half a mile wide where we struck it, but was

almost impassable, since the ice had all been broken up and jammed together into every conceivable shape by the tides, and then refrozen, forming a chaotic mass of jumbled-up hummocks and blocks, over which we had to get our deer in the best manner we could.

By the time we reached the miserable low hut, the doors of which were so small that we had to bend nearly double in entering, we were fully prepared to enjoy a little nourishment, having eaten nothing since the night before. Fresh venison steaks, with plenty of milk, supplied our bodily wants, while the information that there was a settlement of Yakouts a few versts off, from whom we could procure plenty of fur clothing, meat, and bedding, revived our spirits, which were rather depressed from the disappointment we had sustained. We also learned that the Tungusian "starasta," or head man of this district, was living in the same settlement, so no longer anticipated any trouble in obtaining fresh deer to carry us to Algasee, being provided, too, as we were, with documents from the governor at Nikolayefsk, which would have great weight with the old chief. Even our deer seemed to realize that their journey was ended, for, when we mounted them after our repast to go to this settlement, they started off on a brisk trot along the well-beaten trail, which pace they kept up until we arrived at the place. It was the first time we had ever ridden faster than a walk with the animals.

Upon arriving at the settlement, about fifty persons—men, women, and children—rushed from the log huts to meet us. They were nearly all Yakouts, and, though dressed much like the Tungusians, could be readily distinguished from the latter by the regularity of their features and the greater intelligence expressed in their countenances. They all have the prominent cheek-bones of the Tartar.

The Yakouts inhabit that large extent of country lying in the interior west of the town of Okhotsk, and on the Lena River, where is a city called Yakoutsck, of about 15,000 inhabitants, the greater part of whom are Yakouts. This city was founded in the year 1632 by the Russians, and has ever since been one of the most prominent Russian towns in Eastern Siberia. It contains a number of good buildings, and is the

entre of a very large trade in furs, for which nearly all domestic articles are given in exchange. It is the principal emporium of this whole section, and is connected by government post-roads with Irkoutsk, the capital of Eastern Siberia; Coema, on or near the Arctic; Ajan and Okhotsk, and, by way of the latter, with all of Kamtchatka. Most of the Yakouts, from constant intercourse with the Russians, speak the Russian language, and have adopted their manners, customs, and religion.

Their dress is peculiar to themselves, being a mixture of that worn by the humbler Russians and the skin garments of the wilder tribes. This comprises a large gray cloth overcoat made after the Russian pattern, well-tanned buckskin pants, and torbassa, or boots, also of heavy buckskin, beautifully tanned without the fur, of neat design, and tastefully ornamented. The latter are made to fit the foot snugly, and at the toe arch over the foot like the bow of a skate. The legs are large and comfortable, except at the ankle, and reach to the knee, the tops folding down on the outside for several inches, and bordered with a wide band of black or colored cloth. A welt of this cloth is also sewed in all the seams. At the ankle two very long and broad strips of buckskin are fastened, to be wound snugly around the leg, half way up to the knee, as a support. These give a very trim appearance to the boot. The Yakouts have small feet, and take especial pride in being well booted.

The Yakouts are a very quiet, inoffensive people, industrious, ingenious, and gifted with a natural business tact. They might, with propriety, be called the Yankees of Siberia. It is not uncommon to meet them in the most isolated regions with long trains of deer laden with trinkets of all kinds, which they peddle out to the nomadic tribes in exchange for pelts.

They are neat both with regard to person and habitations, more so than any other of the eastern tribes of Siberia, and are very domestically inclined. Horses and cows are their constant companions. Those whom we saw at the settlement near Tugur had been formerly in the employ of the Russian-American Fur Company in Ajan, and were afterward brought to this place by Captain Lindholm. Among them

were a number whom Swartz had previously known at Ajan, so our reception was most cordial.

According to Russian custom, the samovar was immediately produced, and excellent hot tea served, but our hosts refused to partake until we had finished, notwithstanding oft-repeated requests on our part that they should do so. In the midst of the roomful of dark-skinned visitors we received during our short stay at the settlement, our astonishment was great at finding one of the most beautiful little blonde girls any of us had ever seen. Her fair complexion and long sunny hair showed in strange contrast with those of her little dark companions, yet she herself appeared wholly unconscious of the dissimilarity, and was as happy and contented as the rest of them. Upon inquiry, we learned that her parents, who were Russian, were both dead, and that these kind people had adopted her.

We at once sent for the Tungusian starasta to try and make arrangements to procure deer for our farther journey, and, had it not been for letters and the Cossack we had brought with us, would probably have failed altogether; but these powerful allies convinced the old man of the importance of aiding us, and, after a long parlanee, in which he exhibited all the characteristics of a close-fisted, money-loving human, we obtained from him the promise of eight deer for the road. The remainder he afterward procured from Vassilly and Eoff, the two Tungusian hunters we had overtaken on the road, who were to accompany us as guides, and to care for the deer. We availed ourselves of this opportunity of replenishing our supply of clothing, and, having ordered each a pair of buckskin pants, torbassa of Yakout make, and robes of rabbit-skin for lining our blankets, we departed for our tent, which had been pitched near the small hut we visited in the morning after leaving Tugur Station. We were also fortunate in obtaining thirty-six pounds of fresh beef for road use, and were therefore confident of having enough provision to carry us to the home of Solavaoff, the Yakout cattle-merchant who was expected at Nikolayefsk about the time of our departure from that place. His house is situated upon the Arla River, about one week's journey distant from Tugur. From him we would have no difficulty in procuring fresh

neat enough to last us to Algasee, though we might have to dispense with tea, sugar, and other luxuries with which we had been provided thus far.

During the following day we remained in camp repacking our loads for making a fresh start, and waiting for the completion of the garments we had ordered from the Yakouts. The day was snowy, and, to add to the disagreeableness of our position, our tent smoked badly, so much so as to cause us all to suffer much from inflammation of the eyes.

Notwithstanding their anxiety to return home and commence hunting for sable, Mikhaeloff and Constantine departed reluctantly. They, however, felt fully repaid for their trouble and delay by the letters we furnished them to the governor, upon the strength of which they entertained strong hopes of being rewarded with swords and medals. How far their anticipations were afterward realized we never had an opportunity of ascertaining.

Vassilly and Eoff, our new guides, were younger, more active, and more diffident than the former ones, and, being but little acquainted with the Russian language, we experienced some difficulty in conversing with them. The former, Vassilly, gladly accompanied us, being actuated by motives that often impel young men in our own country. His was in reality a love mission, as he had not long previously purchased a bride, and the journey we proposed making being also the one he wished to take, he gladly availed himself of the opportunity of accompanying us, in order to have the solemn ceremony performed. His intended was a daughter of one of the *golovas* of grand chiefs of the tribe—a fair lass who commanded the exorbitant price of eighty reindeer. This is considered a good fortune among these people, who deem themselves well off if they possess ten or a dozen of these animals. Owing to their scarcity, a deer trained to riding is worth in this region from forty-five to sixty roubles, and a pack-deer about thirty-five roubles, which last is equivalent to about twenty-six dollars.

This custom of buying and selling wives, according to the Tungusian custom, is a better institution than would appear at first sight. It is designed to prevent young men from marrying before they are able to support their wives as the

parents think her station demands; besides, if the suitor is objectionable, it is so very simple to prevent the match by demanding a price beyond the means of the disconsolate lover. Upon the day of marriage, it is customary for the parents to present the bride with an equal number of deer as was paid for her, together with a good tent made of deer-skins, and all the necessary household utensils for a good start in life; so that, in reality, nothing is lost to the husband by the purchase other than a transfer of his chattels to his wife. Daughters are valued according to the wealth and standing of their parents. In this locality they range from eighty deer down to one and two, though I heard of one who was purchased for a plug of tobacco. The ceremony is usually performed according to the Russian rites by a priest of the Greek Church, and it is not an uncommon occurrence for parties to travel seven or eight hundred miles through the wilderness for the purpose.

November 15th.—In the morning our thermometer indicated -10° Fahrenheit.

While making our final preparations to depart, all the inhabitants of the Yakout settlement assembled at our tent and commenced a systematic begging proceeding, each asking for some of every thing we had; but their preferences were for tea and alcohol, or vodka, as they called it. The former we had to refuse to them altogether, though the latter was liberally distributed to men, women, and children, as all imbibe, and not many minutes elapsed before the whole community were in a condition of delectable uncertainty and indifference. At length all was in readiness, and we once more mounted our deer and moved on our way amid the parting "prostchis" of our tipsy friends.

Our route led down the left bank of the Tugur River, over a slightly rolling country, well wooded with larch, spruce, and fir. Upon reaching the sea-shore, about five versts from camp, we followed the beach in a westerly direction until prevented from going farther by high cliffs, they being the abrupt terminations of mountain spurs running down to the bay. A few versts from the mouth of the Tugur we found it necessary to cross a small river one hundred feet in width, called Algocan by Eoff, our guide. The ice in this stream

had been loosed from shore and broken up by recent tides, consequently we experienced some difficulty and delay in effecting a crossing: this was accomplished only after building two bridges of driftwood, suitable for our deer to cross upon, and leading from each shore to the drift-ice in the middle of the stream.

Meanwhile a strong northerly wind set in, sweeping down the bay directly in our faces, and carrying before it a severe snow-storm, which continued without cessation until late at night. The small, driving icy particles, dashing into our inflamed eyes, were the source of much pain, and for the time being nearly blinded us. Upon striking the cliffs we were compelled to make a detour inland a few versts, but again joined the coast just at dark, and camped near the mouth of a small river emptying into Tugur Bay, known as the Amikan.

We were highly delighted with our new deer. They so far excelled in activity and vivacity our last ones, that it was hard to realize the fact of their being of the same species. My own, though uncommonly small, was altogether too vivacious to admit of my indulging for a moment in any feelings of security. Several times I was dismounted without being consulted as to the best manner of performing that feat. Our blankets, lined with hareskins, and deerskin sleeping-bags to crawl into, made camping out in our light tent much more comfortable than it had been previously.

The following day we left the bay behind us, and took a northwest course toward the Arla Hills, over a wooded, hilly country for about twenty versts, when we struck a stream about one hundred feet wide, called by our guides the Malmazine. This night we camped on the Malmazine, also the following one, pitching our tent on the night of the 17th of November near the foot of the Arla Hills. We found traveling very difficult, owing to the depth of snow, which lay two and a half feet deep all over the ground. Through this our deer had to flounder all day long, breaking a path for themselves, consequently our progress was very slow. The whole country was densely wooded with small larch and spruce, and upon the banks of the stream we saw many willows and poplars. These last were generally bent to the ground by the

accumulated masses of snow on their branches, and grew so thickly that in places we found it necessary to beat the snow from their branches and allow them to spring back to upright positions in order that our train might proceed.

The Malmazine flows east through a narrow valley, bordered by ranges of wooded hills—spurs from the Arla ridge and empties into Tugur Bay. The Arla Hills, over which our route lay, attains an elevation of about 4000 feet. As we continued to approach them, the snow increased so rapidly in depth as to afford a very serious obstacle to our progress. We sadly felt the need of snow-shoes for breaking a path through it, but as yet were unprovided with them. However after camping, Eoff chopped down a tree, and set at work with his hatchet making a rude pair for the purpose of breaking a trail over the mountains. The Tungusian snow-shoes are entirely different from those used by the Canadians; they are entirely of wood, about five feet long, and ten inches wide, hewn very thin, and bent up at the toe. When completed, they are soled with sealskin, or skin from the legs of the deer or horse, with the hair on, which makes them glide forward easily, and prevents their slipping backward while making an ascent. On this occasion we had to content ourselves with merely the wooden shoe, having neither the skin nor glue for soling them.

By this time Yakov, our Cossack, had learned to place the most implicit confidence in our good judgment and taste, particularly as regarded edibles. From time to time, as we produced some little delicacy from our small supply of extras he was always ready to partake of them without previously asking any questions. Curiosity probably prompted him in many cases, however.

This evening we decided to prepare a little mustard to be eaten with our boiled beef. The Cossack had never seen the article before, and manifested the greatest curiosity both in the preparation and disposition of it. He was evidently eagerly waiting for us to finish eating.

While quietly and comfortably enjoying our after-dinner pipes, we were suddenly startled by a most dismal howl, followed by a fearful commotion among Yakov and the Tungusians; the former lay with his face to the snow, his mouth

covered with both hands, and blowing as if trying to rid himself of all his teeth, while the natives were moaning and dancing about like madmen. We easily guessed the cause. Each, eager to secure his share of the unknown delicacy, had swallowed a large spoonful of it without first testing its strength. After that they became very wary of all unfamiliar edibles.

The morning of the 18th of November was clear and quite cold, -18° Fahrenheit.

To facilitate traveling, Eoff started in advance on the snow-shoes with his portion of the train, to break a trail, while the rest of us were striking tent. At this point the Malmazine had dwindled down to a mere brook, up which we traveled to its very source, winding through a deep, narrow gorge, wooded with scraggy firs. Upon either hand the high, bald peaks of the range towered above us, their bare faces unbroken by a single object to relieve the glaring whiteness.

The snow had become so deep that even the snow-shoes were of little avail. Riding was generally impossible, and we had to flounder through the path made by the deer. This was much more difficult than would seem, as these animals take long steps, and, in traveling through deep snow, invariably step in the tracks of the leading animal. After a train of them passes by, their route is indicated by a continued series of deep holes, about thirty inches apart, and each one not more than six inches in diameter. The easiest way to travel on these paths is to try to step from one hole to the other; at the dividing ridges of snow lying between each necessitate very high and long strides, and the holes are too small to accommodate one's foot with comfort, which makes walking very laborious. The ascent through the gorge was so gradual that we did not realize the altitude we had attained until, upon looking back, the whole country we had traversed during the past three days lay spread out before us like a carpet.

At the head of the gorge we found ourselves in a grand natural amphitheatre of bald mountains. Glancing upward, about fifteen hundred feet above us, we could barely distinguish a line of very small dark objects apparently just crawling over the snow; they were too far distant for us to make

out their forms, but we at once guessed them to be Eoff and his deer. Tired as we already were, this climb before us was rather appalling.

Now that we had got above the wooded level, we found traveling much better for our deer. The snow upon the mountain sides, from exposure to winds, was closely and firmly packed, as solid as the ground itself, but so slippery that we could hardly retain a foothold with our smooth-bottomed torbassa. If once well started downward, we knew there would be no stopping until we had gained the bottom of the gulch below, and several times we found it necessary to lie flat upon the snow, and cling with both hands and feet to the slight inequalities in the surface. Now and then, as we ascended, for long distances the hard surface of the snow would be literally torn to pieces, and, glancing toward the foot of the mountain along the ragged furrow, we could see vast accumulated masses of snow, boulders, and *débris* deposited by avalanches.

With all these indications of the power of the elements and the dangers that would sometimes beset the traveler in crossing this range, we felt truly grateful for the calm and beautiful day with which we were favored. A slight wind would have made the passage impracticable, and, had we been overtaken by one of the fearful poorgas, or gales, that at times sweep over these latitudes, certain death would have ensued. Had we not been blown from the mountain sides, as sometimes happens, we would certainly have become scattered and lost in the driving clouds of snow particles, and perished from exhaustion and cold.

At no time during the day was the temperature above zero. Notwithstanding this degree of cold, the violent and continuous exercise of climbing caused perspiration to flow freely, but, the moment we stopped to catch breath, the moisture upon our faces and in our clothing began to stiffen.

Upon reaching the summit a glorious view met our gaze, which fully repaid us for the climb. In the far distance lay Tugur Bay, gleaming like a mirror, and backed by a range of lofty mountains clad in snow. The intervening country, which presented so many irregularities to us while traversing it, now appeared as level as a floor, and presented to

view a vast area of dingy-looking country, clothed in a confused mingling of black and white, occasioned by patches of snow and woodland. For many hundred feet above us, on all sides, yet towered isolated bald peaks, whose magnitude we could form no conception of, for want of some object upon their sides with which to contrast them. Upon the western slope of the range we encountered trees nearly at the summit, and the snow was very soft, being upward of seven feet in depth.

The descent was so gradual that we decided to ride down. But now a serious difficulty presented itself—how were we to mount? The snow was so deep and soft that our staffs were no assistance to us whatever. At length the Tungusians lifted us each bodily into the saddle, and, mounting their own deer, which they were enabled to do from long practice, we commenced the descent down a ravine in which the River Arla takes its rise.

To this day I can not look back to that descent without experiencing some feelings of conscientious remorse; yet, if I should again have to endure the annoyances of that trip, I doubt whether I would not be guilty of the same improprieties. My deer was a very spirited little animal, but labored under the disadvantage of having very short legs, consequently was unable to keep up with the rest of the train while plodding through the deep snow. Not many minutes elapsed before we were left in the lurch. This much fretted the little fellow, and caused him to make strenuous efforts to catch up.

In his eagerness to get ahead, he did not step high enough to clear the ridges of snow between the deep tracks, and the next moment fell forward, thrusting his head into one of the deep holes, and plunging mine into the next. This I had become accustomed to; but the train was so far ahead I could no longer get the assistance of the natives in mounting, and was consequently obliged to stumble forward on foot, which, wearied as I was, was far from pleasant. After proceeding nearly a mile, we came to a small sapling near the trail, by climbing which I managed, after several fruitless efforts, to remount. By this time the train was out of sight, and my deer had become nearly frantic at being left alone; it was

impossible to restrain him. We had hardly gone two hundred yards when both again fell, and another long walk succeeded.

After climbing three more trees, and falling off immediately after each, in the course of an hour I overtook the train, which had been waiting for us. My patience was completely gone. What I said I don't know, but I am conscious of having muttered something very fluently all the way down the mountain. At any rate, should any one be desirous of becoming proficient in the use of words and phrases suitable only for such occasions, I most heartily recommend a winter trip across the Arla Hills with a short-legged deer.

We continued down the gorge until dark with the hope of finding less snow, that our deer might be able to paw their food up from the ground, but at length, from exhaustion, we were forced to camp. We did not even pitch the tent. For want of other food for the deer, we cut down a number of trees, that they might obtain the moss from the branches. This tree-moss will only sustain deer a few days, but, in the absence of the other, they will generally eat it.

We were hardly well asleep when shouts near camp awakened us, and, upon glancing around, found both the natives missing. Soon Vassilly rushed into camp saying that the deer had all gone back over the Arla Hills in search of food, and that Eoff had started after them on snow-shoes. We pitied the poor fellow, after his hard day's journey, but there was no help for it. He did not get back to camp until 6 A.M. the next morning. Upon awaking, our beards, hair, and fur hoods were all cemented together by ice formed by our breath freezing.

The two following days we kept down the Arla River, which flows in a northerly direction. As we advanced the snow diminished to a depth of eighteen inches, the gorge widened into an extensive valley, and the brook Arla became quite a respectable river, about three hundred feet in width.

CHAPTER XI.

Approaching Solavaoff's.—Valley of the Arla.—Sougyol River.—Tungusian Fishermen and Fish-traps.—The Settlement.—Cattle-raising.—Distinction.—Valuable Service and Reward.—Yakout Yourt.—Windows.—Chual.—Penates and Samovar.—Meeting old Friends.—Filt, Destitution, and Industry.—The Belle of the Village.—A trying Ordeal.—Escape from the Dilemma.—Additional Annoyances.—Departure.—Torum River.—Tungusian Grave.—Wolf-tracks.—Necessary Precautions.—Siberian Wolves.—Habits.—Mode of Capture.—The Wolf-pen.—Disagreeable Proximity of the Animals.—Tela Hills.—Prospect.—Elbow and Shantar Islands.—First View of the Juygur Mountains.—Forest Trees.—Great and Small Tela Rivers.—Journey by Moonlight.—Crooked Trails.—Uda River.—Algasee.—Our Reception.—Old Guilioff.—A hideous Object.—Horses as Food.—Dainty Portions.—Meeting of Yakov and Guilioff.—John Brown among the Tungusians.—Swartz's Adventure.—At Sea on the Ice.—Imminent Danger.—Hunger and Thirst.—Mental Agony.—Providential Escape.—Feeding Dogs for the Journey.

Just before camping at night of the 20th of November, we struck a fresh trail, and, as it led toward our destination, Solavaoff's yourt, we did not deem it necessary to send one of our guides in advance to break a road on the morning of the 21st, as had been our practice since first striking deep snow. Solavaoff himself we did not expect to find at home, as he was daily expected in Nikolayefsk at the time of our departure from that place; but, as our supplies were nearly exhausted, we were anxious to procure fresh meat from some of his people. Our course was northerly, up the valley of the Arla River toward its mouth. At this point the valley is about ten miles wide, mostly barren, dotted here and there with clusters of larch-trees.

Fifteen versts from camp we struck the junction of the Arla and Sougyol rivers. To reach Mamga, the whaling station on Tugur Bay, where Captain Lindholm's party were now living, it is customary to ascend the Sougyol and cross the Arla Hills at its head.

Ten versts below the junction we came upon a party of Tungusians fishing through the ice of Arla River. For the

purpose they made use of a long, funnel-shaped basket trap, made of willow switches woven together. This kind of trap I afterward found in use among nearly all the tribes from the Amoor to the Arctic. A brush fence is first constructed across the bed of the river beneath the ice, narrow passages being left at intervals for fish to swim through. Into these passages the traps are lowered and anchored. The baskets are so arranged that, in entering them, the fish have to pass through a narrow funnel; and once in, he is unable to find his way out again. The ice about the trap is strewn with fish of several varieties, the proceeds of morning's catch.



FISH-TRAP.

Following a well-beaten trail leading from the fish-trap, in a quarter of an hour we arrived at Solavaoff's, a group of huts erected in a fine grove of larch-trees. Upon all sides, jutting from the snow, were large stacks of hay, which claimed the region to be well adapted to cattle-raising. It was the business in which the Yakout proprietor was engaged, the towns on the Amoor, though some distance affording a ready market for his beef. We were somewhat surprised at finding the Yakout at home, knowing that his dependence had been placed upon his going to Nikolay with cattle.

Upon learning from us that his arrival had been eagerly

looked for, the poor fellow manifested considerable alarm, as it was now too late to fulfill the promise he had made to the authorities. Among the natives Solavaoff is regarded as a great man. During the war with the Allies, while the Russian troops on the Amoor were greatly in need of provisions, he drove a large herd of cattle all the way from Yakoutski to that point, and disposed of them to government at a very low figure. The Czar, hearing of his generosity, as a reward for his services sent him a large coat, profusely decorated with gold and silver lace and fringe. The garment was certainly a gorgeous affair, but the tailor had evidently not taken the wearer's measurement, he being very small and the coat enormous. This was immaterial, however, as the coat was kept carefully locked up, and only aired on great occasions, and we were hardly seated before the garment was produced for our inspection.

The storehouses and stables about the settlement were ordinary log buildings, but the inhabited yourts more resembled mounds of clay on the exterior than dwellings. Solavaoff immediately conducted us to his yourt upon dismounting from our deer. We entered by a small leaning door lined with deerskins into an apartment about twenty feet square. After the usual plan of the Yakouts, the house was built of small split logs standing upon end instead of lying horizontally and sloping inward toward the top like the sides of a Mississippi River iron-clad. It was also roofed with split logs, supported by heavy posts, and the whole banked over on the outside with clay for warmth. Two small apertures a foot or two square, in each wall, admitted light. Some of these were glazed with fragments of glass obtained from whalers, but, for the most part, translucent fish-skins sewed together, or cakes of transparent ice, served as a substitute. These last are secured in place by a mixture of snow and water used as mortar, which freezes upon application, and remains perfectly solid during the long, cold winters. Ice windows will often last for months. The temperature inside the hut during the daytime is rarely warm enough to thaw them, and at night a stuffed deerskin pillow is thrust into each aperture as a protection from the hot breath of the numerous sleepers inside.

The feature of a Yakout yourt is the chual, or fireplace. This stands in one corner, out from the walls of the apartment, facing diagonally across the room. The chimney and fireplace are all one, built of long light poles bound together with wisps in the proper shape, and then plastered over with several layers of clay, each layer being carefully baked and hardened before a fresh one is applied. They are broad and concave, so that the heat and light are reflected to all parts of the room, and, besides, are so massive as to retain warmth for many hours.



INTERIOR OF A YAKOUT YOURT.

Upon three sides of the room were ranged a single tier of bunks, serving as seats during the day, as well as beds at night. Those inseparables of a Russian habitation, the penates and samovar, attracted our attention at once upon entering, and gave the place an air of civilization; but imagine our surprise, and the associations they revived, when a large dish of old-fashioned, steaming-hot griddle cakes, with an abundance of fresh milk and delicious tea, were arranged before us to appease our day-old appetites.

In addition to Solavaoff's yourt, there were several others in the settlement built after the same style, though much smaller. The occupants of these—a mixture of Yakouts and Tungusians—we found in a deplorable condition of filth and

destitution, though in each case they were industriously employed sewing on skin garments, or manufacturing sleds or snow-shoes. They had formerly been employed by the Russian-American Fur Company, but, since that company had discontinued their whale-hunting in the Okhotsk Sea, the natives had undergone many privations. Wherever we went, they importuned us for tea and other food, but we were compelled to deny them. Upon learning, however, the object of our journey, and the probability of their being able to obtain employment in the construction of the telegraph line, they manifested great delight, and became anxious for the work to commence.

As we entered one of the huts, our attention was directed to a Tungusian lass, upon whose coffee-colored-brow about eighteen winters had left their impress, and whose slight and graceful figure, and large, gazelle-like eyes, proclaimed her to be the belle of the community. Her features were quite regular, and, no doubt, she had a beautiful complexion; but, to judge of the latter with any certainty, we found that it would be necessary first to subject her to a parboiling process, and then to give her a thorough scraping. To this young lady I was afterward indebted for being subjected to one of the most trying ordeals that it was ever the misfortune of a modest young man to pass through.

It was that first night at Solavaoff's, and the floor of the yurt was literally strewn with piles of deerskins covering the prostrate forms of the sleeping natives. My companions had already retired to the bunks allotted them, while I sat at a small wooden table writing up my journal of the day's events. It was a curious sight to see all ages, sizes, and sexes strewn promiscuously about the room, and, not being accustomed to such a state of affairs, I naturally waited until all should be asleep before commencing my preparations to retire. At length the whole apartment resounded with the snores and snorts of the household, and, quietly laying aside my journal, I began noiselessly to undress. But horror! my coat was hardly off, when, happening to glance toward the floor, I beheld the large, soft black eyes of the "belle" peering at me from beneath an enormous pile of deerskins.

This was more than I could endure; so I filled my pipe

and proceeded to have a smoke, hoping that she would soon tire of her inspection and go to sleep, that I might renew my disrobing process; but no such good fortune was in store for me. Minutes passed as hours, and my eyelids weighed like lead. Now and then I cautiously glanced downward, but there they shone as brightly as ever, with no indications of weariness. I filled my pipe again and tried to smoke, but, sitting in my shirt-sleeves, I soon became chilly, and, in addition to my mental agony, my teeth began to rattle like a quartz mill. At length I could endure it no longer, and was forced to retreat ignominiously to my blankets, and there, shielded from her view by a double thickness of hareskins, to divest myself of the remainder of my outer clothing lying flat upon my back.

But my troubles were not ended with this. Just as I was dropping asleep, an old Yakout woman, lying in the middle of the floor, got the hiccoughs, which she kept up for two hours at least; and a Tungusian boy, with his head under my bunk, sang all night in his sleep, keeping up a kind of humming, buzzing sound, like a horse-fly on a warm day, occasionally throwing in a whining tone. These sounds, with the snoring, saw-filing, wood-sawing, and puffing snores of a dozen other natives, made Bedlam a fit subject of all my dreams that night. The room was closed up like an oven also, and by midnight the atmosphere of the place was not most desirable for breathing.

It had been snowing since our arrival at Solavaoff's, but on the morning of the 22d of November we were greeted with a clear, beautiful day, though a cold westerly wind was blowing. After procuring two "pouds" (twelve English pounds) of beef, we once more mounted our deer and started off, taking a westerly course for a range of wooded hills running up to Oudskoi Bay. This range separates the valley of the Arla and Torum Rivers from that of the Tela.

Our route lay over a large barren, on which was little snow, so that the traveling was very good. We crossed the Torum River near its mouth, over very rough, hummocky ice, and continued along the shore of Oudskoi Bay, passing a Tungusian grave surmounted with a rude cross, and camped after dark in a grove of larch-trees. We saw large numbers of

wolf-tracks on all sides, and, after allowing our deer to feed a while, found it advisable to tie them up near the camp-fire, to keep them from being devoured during the night by wolves. These wolves are very large, but rarely attack men. At this season of the year they generally prowl about the sea-shore, subsisting upon seals and the carcasses of whales that occasionally drift ashore. Owing to their extreme shyness and the difficulty of capturing them, their hides are highly prized by the natives, who use them for bordering the hoods of their kuklankers, as a protection from strong winds and driving snow.

The common way of catching them is with poisoned bait, strychnine being generally used for the purpose; this the natives obtain in trade from the Russians. Another method of catching them is by means of a double circular pen, or rather two pens, about ten feet high, the one inclosed within the other, and having a narrow passage-way between, extending round the inner inclosure. Into this inner inclosure is lowered a deer from the top—there being no side entrance—the scent of which attracts the wolves. In the outer palisade or wall is a small door opening inward just wide enough for the wolf to enter, the narrowness of the passage-way preventing its opening wider. Once enticed into this passage by the scent of the deer, owing to its narrowness, the wolf is unable to turn about, and continues on around until he again reaches the door, which, being left open, obstructs his farther progress. To advance, he closes the door, thereby becoming his own captor, and is afterward shot or speared from the top of the pen.

During the night we kept large fires burning about our camp to keep the beasts away from our deer, which were tied up close to our tent. After retiring, we were frequently awakened by the long, dismal, and disagreeable howling of the hungry animals. One howl, which was immediately answered by half a dozen others in different directions, seemed so unpleasantly near to our tent that I felt disposed to doubt their cowardliness. The next morning numbers of fresh tracks were seen within a hundred yards of our camp. Vasilly informed us that, when pursued by these wolves, if a coat or any garment fastened by a string to the sled is

allowed to trail behind, the animals will not pass ahead of it.

About noon we reached the summit of the Tela Hills, having climbed through a steep gorge, thickly wooded with spruce-trees, and nearly filled with snow. The view from the summit was superb, though desolate in the extreme. On our right lay the valley of the Arla, patched with white barrens, through which that river and the Torum winds to the sea; and on our left lay the Tela valley, extending to the Uda River far to the west. Looking over the valley of the Arla, far out at sea, we beheld Elbow Island of the whalers, and the Shantarski group, while to the northwest lay Oudskoi Bay, bounded on the farther side by the high, ragged, snow-covered peaks of the great Stanovoi or Juggur range.

This range we could trace for upward of a hundred miles along the western coast of the Okhotsk Sea. These were the dreaded mountains we were to explore, and from which, our Nikolayefsk friends predicted, we would never emerge if we once ventured into their mazy, intricate depths. They did not appear very inviting at this our first sight of them.

But a few moments were consumed in making the descent to the plain west of the hills. This plain extends westward to the Uda River, and is quite thickly wooded the whole distance, mostly with larch, though we saw quantities of poplar, birches, alders, and willows; the poplars were generally tall and straight, and grew to very good size: of these the Tungusians build "dug-out" canoes for summer navigation. During the day we crossed two rivers that empty into Oudskoi Bay, and are known among the Russians as the Great and Small Tela Rivers; neither of these exceed two hundred feet in width. The smooth ice on their surface made it necessary for us to drag our deer across singly, which occasioned some little delay.

We continued our journey for some hours after dark, traveling by moonlight in order to find moss for the deer, and at length camped upon a small stream about eight versts from the semi-Russian settlement of Algasee. At this place our second deer journey would terminate.

Having a ready trail before us from this point, early the next morning Mahood, Swartz, Vassilly, and myself pushed

on in advance of the train. Though leading over small barrens and frozen lakes, in many places where there were no obstacles this trail was so crooked and winding as nearly to double the distance to the settlement. The Tungusians seem to have a natural aversion to straight, direct routes. Already during our journeys we had several times observed their making long detours without apparent cause. It may be owing to the freedom allowed the deer in selecting their own course, or perhaps to the carelessness acquired by the natives through leading a life of such indifference, in which time is no object, and during which, wherever darkness overtakes them, there is their home.

Fortunately for us, we soon lost the trail, and were obliged to rely upon our compasses, guessing at the course we wished to take. We soon struck the Uda River, which was at that point about five hundred yards wide, and open in many places. The bed of the stream, which was much exposed from the lowness of the water, was strewn with huge boulders and drift-logs: some of the latter were three feet in diameter at the roots.

Having crossed on the ice, we struck a fresh trail leading up a narrow slough, and followed it for nearly two versts, skirting the edge of a heavy forest of larch and spruce trees, when three log cabins came in view; these, we were much surprised to learn, constituted Algasee, our destination, and I confess to a little reluctance in dismounting from my deer. The score of inhabitants, and about four times as many dogs, all rushed out to greet us, such a thing as a winter arrival of strangers at their secluded little settlement not having taken place for a long time.

Under the guidance of a venerable Cossack named Guilioff, we entered one of the huts, and relieved ourselves of our frosted fur clothing, while the old man began the preparation of some tea. As we entered the low door we were confronted by an object which surpassed in hideousness any thing we had yet seen, and, being in a white man's habitation, occasioned us all the more surprise. It was a horse's head lying upon a small table in the middle of the room; the skin had been peeled from it, disclosing the double array of grinning teeth, which, with the full, protruding eyes glaring wildly

from their bloody sockets, and general repulsiveness of object, caused us all to recoil slightly upon first seeing it. In answer to our inquiries as to the use they proposed put it, our hosts manifested much surprise, and replied, "Why, it, to be sure; it is one of the best parts of the horse." I didn't request an invitation to dine with them. We afterward learned that horse-meat is preferred by many of the natives (by the Yakouts especially) to either beef or deer meat. By them the entrails are preferred to any other portion of the animal, and the head next. In this locality the carcass of a horse can usually be bought for forty roubles, one quarter of which is demanded for the intestines alone. Beef or venison can be purchased at half the price of horse meat, pound for pound.

Our disappointment in finding Algasee such an insignificant little settlement was much mitigated upon learning that the town of Oudskoi, situated about eighty versts farther up the Uda River, was a much larger place, and that, in addition to the Russian ispravnik, to whom we had brought our letters, it also contained a church, priest, and about two hundred inhabitants.

At Algasee we could obtain dogs and sleds for the journey, which, with those animals, would consume only one day. As much with the curiosity to try this, to us, new mode of traveling, as with the desire of reaching the larger settlement, we resolved to make an early start the next morning.

It was quite entertaining to witness the meeting between Yakov and old Guilioff: they had been old friends, but two long years had elapsed since their last meeting. With their naturally affectionate dispositions of these people, it is easy to realize the scene that attended their recognition of each other. Tears were shed quite freely, and neither had an excuse on tongue for any thing or any body other than his companion.

As we sat smoking our pipes after tea, we were suddenly stricken nearly dumb with astonishment at hearing a Turkish boy, about eight years of age, start up the song of "J. Brown." This tune, which we supposed we had left ten thousand miles behind us, lost none of its melody at the hands of the little native, though the words were fearfully mangled, not being comprehended at all by the singer.

Many of these people understood several English words and phrases: these they had learned from American whalers in years gone by, when the latter used to congregate in Oudskoi and Tugur Bays. A whaling captain once informed me that, during these flush times in the Okhotsk, he had counted from his own ship's deck upward of seventy vessels, all visible at one time. Every summer it was then the custom for the natives and half-breed Russians of these settlements to assemble at Chimikan, a small summer village at the mouth of the Uda River, fifteen versts below Algasee, and there to exchange furs, fresh meat, and fish with the whalers for liquors, calicoes, tobacco, etc.

In connection with this locality, Swartz related to us quite a thrilling adventure he had had three years previously, while yet in the employ of the Russian-American Company. He was at that time making a short journey along this part of the coast with some Tungusians and reindeer. Coming to a deep indenture in the coast, to shorten their route they decided to strike across the bay upon the ice, which reached about two miles out from land seaward. After effecting a crossing, upon reaching the farther shore they found their farther progress barred by a narrow lane of water lying between them and the beach, and, with the hope of finding a landing-place, retraced their steps, following along the edge of the ice. The farther they went the wider the breach became, when suddenly the truth flashed upon them in all its horror. The ice-field had loosened from shore and was drifting out to sea, carrying them with it. To add to their dismay, a strong land-breeze sprung up, increasing the speed of the ice, and covering the sea with white-caps. This was all the more alarming, since the salt-ice upon which they were adrift was so thin and rotten that, with two strokes, Swartz drove the blade of his sheath-knife entirely through it. As they drifted from beneath the lee of the land the water became much rougher, and their frail raft undulated with every swell, threatening momentarily to break to pieces. To increase their chances of escape, the deer were distributed over the surface of the ice, lest their weight should cause it to break up sooner.

By this time upward of two miles of open water intervened

between them and land, and the gap was continually widening. Still they had not altogether abandoned hope, as the wind did not appear to increase in violence, though it blew bitterly cold. Suddenly a loud report, booming over the ice-field, reached the ears of the terrified party, and the next moment a large fissure disclosed itself within a few rods of where some of them were standing; this was but the commencement of the demolition. Report succeeded report, each proclaiming another division, until at length the whole neighboring surface of the sea was crowded with cakes of ice, large and small, grating and grinding together among the mad waves, and gradually encroaching upon the larger field, which as yet bore the travelers. At this time the party thought their destruction almost inevitable, yet dared to indulge in a little hope that the wind might change, and they be drifted back to land, or upon some island, before the ice should crumble beneath them.

But other dangers began to lower upon them. Beset upon the one hand by hunger and thirst, and upon the other by cold, with their frail ice-raft beneath them, there seemed but little chance of escape. Of fresh meat they had plenty, but no wood with which to build a fire either for cooking or warming themselves. The cold became intense, and the piercing winds even penetrated the thick fur clothing of the party. Nor could they obtain any water for quenching their thirst. Their deer were even worse off than they. Nothing could be done to alleviate the danger and misery of their situation; and, clustering together behind a small ice-hummock, which partially protected them from the cutting wind, they silently awaited their fate. Night at length settled down upon the hopeless castaways, who were now many miles from shore, and still drifting seaward.

They threw themselves down upon the ice with the vain hope of drowning the sad reality of their position in a few hours of sleep, but their minds were too much racked with anxiety to admit of any such temporary relief. The deer would freeze fast to the ice whenever they attempted to lie down, and at length, through utter exhaustion, came and threw themselves upon the prostrate forms of the men in order to rest, it being almost impossible to keep them off.

After the second day at sea, some of these animals became hungry or thirsty that they attempted to eat the ice from Artz's beard while he lay asleep, and actually chewed off a portion of it. By this time the wind had died out, but land was hardly distinguishable in the far distance. They were constantly dreading lest a regular winter-storm should arise, and complete the destruction of their now greatly-diminished craft.

This awful suspense continued during four long and cold days and nights, during which time the travelers subsisted, without water, upon dried fish, of which they fortunately had small supply.

On the morning of the fifth day, aided by a providential current and wind, the ice-field struck a point of land about thirty miles below the mouth of the Uda River, and the party, completely overcome with weakness and hunger, barely had time to extricate themselves and deer before it once more drifted out at sea. Four of the deer died just after the party reached land. With the remainder, four days were consumed in regaining the point from which they had started on their voyage.

It being our intention to make a very early start the next morning, that evening the men who were to provide us with dogs and sleds for the trip gave each of the animals an enormous frozen salmon preparatory to the journey. The dogs are like those we had seen in Kamtchatka, and a more ravenous, wolfish pack I never beheld: this is hardly surprising, though, since they are fed only once each day—at night—and even their allowance is oftener meagre than abundant.

CHAPTER XII.

Swartz's Blunder.—Daybreak.—Exciting Scene.—Preparations for our first Dog-ride.—Enthusiasm of Dogs.—The Narta, or Sled.—Manner of harnessing and guiding Dogs.—The Ostle.—A crestfallen Animal.—Loading Sleds.—The Start, and Jump-off Place.—Contrast.—Dog Character.—Clannishness, Rivalry, etc.—A Melee and its Consequences.—Halt.—The Uda River and Surroundings.—Tea and Ukale.—Ukale for Road Use.—A Fox-chase.—Oudskoi at Night.—Astonishment of the Inhabitants.—The Ispravnik's House.—Agreeable Surprise.—Our cordial Reception.—Vodki.—The Priest and his Antics.—Supper.—A sacrilegious Stratagem.—Oudskoi Society and Customs.—The Town by Daylight.—The Greek Church and Service.—Mockery.—Simple-minded Natives.—A bamboozled Sergeant.—The Priesthood.—Father Ivan's House and Family.—Our Quarters.—A Vechourka.—The Élite.—Music.—Dances.—An embarrassing Position.—Early Recollections.—Vodki and Tea.—Ball Costume.—Snow-shoes and Snow-shoe Practice.—The Polka.—Successful Slide and Supernatural Agency.

FEVERISH with curiosity to experience the novelty of a journey with Esquimaux dogs and sleds, and the realization that, on the morrow, this long-anticipated desire would be gratified, cost me some long, sleepless moments of eager expectation after retiring on this our first night in Algasee. When, at last, I did fall asleep, however, it seemed as though but few minutes had elapsed before I was awakened by the sound of voices, and, upon opening my eyes, found that Swartz had aroused the household, and given them directions to catch the dogs and prepare them for the journey, under the supposition that it was near daybreak. Our watches were all, unfortunately, out of repair, so we could not judge as to the correctness of Swartz's views; but, assuming them to be right, we each sprang from his couch and donned his clothing, while Yakov busied himself blowing up the embers of the last night's fire to prepare some coffee.

Having a journey of fifty miles before us, we determined to start as soon as it was light enough to distinguish the well-beaten sled route. Having packed up the baggage we intended carrying with us, and refreshed the inner man with several cups of hot coffee, we filled our pipes and groped our-

way out through the dark passage-way of the hut to note the progress of day. It was dismally dark, and snowing hard. Returning into the hut, an hour was devoted to the preparation and disposal of breakfast, and there as yet being no indications of approaching day, we paid a visit to the huts of our neighbors. They were all astir like ourselves; that genius of wakefulness, Swartz, having in his midnight raid also dragged them from their slumbers. After another hour's waiting, we all once more adjourned to our couches to finish the night's rest in any thing but a delectable frame of mind.

When day at length did break, all was life and activity. The whole village, old and young, were out, whistling and shouting to call the dogs, and harnessing them up in pairs to long seal-thongs fastened between two trees, preparatory to attaching them to the sleds. With the exception of a few slumber-loving, lazily-inclined old beasts who had learned to look upon a journey as a task, the dogs all responded as promptly as could be desired, and, wild with excitement and delight upon seeing the light sleds dragged from their shelter, they set up a barking, yelping, and howling that might have been heard for miles in the still night air. So eager were they for the start, that there was danger of the seal-thong being broken, and the whole band rushing off pell-mell without the nartas, or sleds.

These nartas are made from eight to ten feet in length, two in width, and about one foot in height—that is, the floor of the sled is about one foot above the snow. Above this a few inches is a light railing on each side, which keeps the load in place. The runners are about four inches in width, flat-bottomed, and built of white birch usually, that being, I think, the hardest wood attainable for the purpose. The whole structure, in fact, is of wood, excepting the rawhide lashings at every joint, which yield if strained, instead of snapping, as iron or other fastenings would do while chilled with cold. The whole sled is very light and pliable, yet strong, and is eminently fitted for journeys over a rough country or hummocky ice. In front of each sled is a stout bow, to which the long seal-thong is attached, and to this thong the dogs are attached in pairs, one pair preceding the other instead of being harnessed all abreast, as is the custom among the

Greenlanders. However, the Greenland mode would not be feasible in a rough or wooded country, though it answers every purpose upon ice or the sea-shore.

Two of the most active and best-trained dogs are chosen as leaders, and harnessed in the van to guide the others. These are directed entirely by the voice, the same as in driving oxen, the words "Tak! tak!" or "Put! put!" meaning to the right, and "Volhk! volhk!" to the left. Each driver encourages his dogs by sounds and whistles peculiar to himself, to which his dogs soon become accustomed, and, for that reason, a strange driver can rarely excite them to much speed or exertion. To cause the team to stop or slack its speed, a peculiar nasal sound is employed, somewhat resembling the "m-a-h-h" of a goat crying, though without the *m* prefixed.

The whip is never used by Siberian dog-drivers, a ready substitute being found in the "ostle," as it is called. This ostle is a stout wooden staff about four feet long, and having an iron spike in the lower end, it is used chiefly as a break for checking the speed of the dogs, and preventing the narta from swaying sideways while crossing an incline or on smooth ice. By thrusting it between the knees of the sled, and crowding the spike into the ice or snow, it works very effectually. As a substitute for the whip, the drivers hurl it through the air at a lazy or disobedient dog, picking it up very adroitly as the sled dashes by the spot where it has fallen. They rarely miss their aim.

Each dog has a complete little harness, consisting of a broad belt across the chest, by which he pulls. This is retained in place by another attached to it, and passes around the dog's body. The whole is connected with the main thong by a short trace. Much labor and taste is sometimes expended in the manufacture of the harness, particularly if the dogs are large, fine, and of uniform appearance.

During the preparations for our start upon this morning we were several times greatly astonished at the amount of sagacity and apparent intelligence displayed by these dogs. One poor little fellow excited all our sympathy. Out of the large number in the village, not more than thirty animals were selected to draw our three sleds. Of those left behind, there was one little fellow who manifested the greatest de-

But at the prospect of a journey. None jumped higher or worked louder than he, and, from the very commencement of the preparations, he stood ready to be harnessed up. When, at length, the others were attached to the thong, and he saw that no attention had been paid to him; with an air of quiet patience he walked up to the team, and took his place in the line with the expectation of being harnessed. To prevent his accompanying us, Guilloff put a strap about his neck, and, leading him up to a post, tied him fast. At this the poor fellow drooped his tail, and his intelligent countenance assumed an expression of the most intense disappointment. He evidently felt the denial as acutely as could any human being.

After having first packed in the bottom of each sled dried and frozen fish for dog food, our baggage was next loaded on, and over the whole our fur bedding and blankets were spread, making quite a comfortable couch for us to recline on. Then, loosening the dogs, the drivers seized their ostles, sprang upon the front of their sleds, and, at the signal to start, off we dashed like the wind through the dark forest. The dogs were wild with enthusiasm, and, defying all restraint, with heads and tails in the air, and causing the woods to resound with their barks and yelps, rushed forward like a pack of famished wolves closing upon their prey. Destruction to both ourselves and sleds seemed imminent as we shot



A DOG-TEAM.

through the dim twilight, every few moments barely grazing the dark, shaggy trunks of huge trees that skirted the narrow trail. A few moments carried us out of the woods safely to the slough, along the edge of which our sleds bounded, now up a little incline, and now down again; and then dashing beneath the low branches of clusters of willows, when suddenly, as if by magic, every dog vanished from sight, and the next instant we plunged over the steep river-bank to a soft bed of snow about ten feet below, on the ice. This was all accomplished so quickly that we barely had time to catch our breath; and the furious speed, together with the faint, uncertain light, which made objects appear more like phantoms than realities, left us in a state of such bewilderment that some minutes elapsed before we came to a realizing sense of what had taken place.

Now that we had passed the most difficult part of the route, the dogs ceased their yelping and settled down to a steady, quick trot. The noiseless manner in which each sled, preceded by the long line of low, dark objects, glided out upon the smooth bed of the river, contrasted strangely with the hubbub and rush of the preceding moments.

The morning was cold and frosty, and the snow-clouds having vanished, the heavens were all aglow with myriads of stars, whose pale light, mingling with the earliest rays of approaching dawn, vested the wintry landscape with a weird-like, ghastly aspect. This, together with the novelty and strangeness of our first experience in dog traveling, made that morning's ride one of the most agreeable episodes of our Siberian experiences.

As we were traveling along I could not but observe a certain clannishness existing among the dogs of each team. Though well acquainted with each other, and upon perfectly familiar terms while loose at the village, yet, when once harnessed to the sled, a spirit of rivalry springs up between the different teams which is often carried to a point of positive warfare. This is more noticeable when one team attempts to pass another upon the route, which is constantly occurring during a day's ride. Upon these occasions the faster team trots ahead with an air of indifference and conscious superiority which, human-like, frets and irritates their rivals to such

an extent that, no longer able to restrain himself, one of the latter makes a vicious snap at the nearest animal of the leading team; this is immediately resented by a counter snap, and, before the drivers are hardly aware of what has taken place, both sleds stop, and a systematic fight ensues. The air rings with shouts, howls, barks, yelps, whines, and cries; the lines and harnesses of the two teams become a perfect network of tangle, and by the time the drivers reach the scene of the melee and deal a dozen vicious blows right and left with their ostles, the animals of the two teams are so completely twisted, mixed, and interwoven as to defy the judgment of any but their masters to detect which is which. The most interesting feature of one of these conflicts is to observe the manner in which the contending parties distinguish friend from foe during the melee.

About every ten versts during the day our drivers stopped a few minutes to allow the dogs a rest; they (the dogs), however, having done but little traveling as yet during the winter, did not seem to appreciate these halts, but, immediately upon the sleds being stopped, would commence an impatient howling, and continue it until once more on the route.

The Uda River flows nearly due east, its general course being tolerably straight, though now and then we encountered large bends. In these places we might have somewhat lessened the distance traveled, but upon the bed of the river the snow was so much harder and the road better, that we did not leave the ice at all during the day. Deep snow is a very serious obstacle to dog-traveling on account of the shortness of their legs.

There was but little variation in the aspect of the country. Both banks of the river were tolerably well wooded with larch, spruce, and poplars principally, the country to the north being nearly level, while to the south of the river it was more broken and hilly. At noon, having accomplished about half the distance, we halted long enough to prepare some tea, upon which, with ukale, we made a very fair repast. While we were in Nikolayefsk, one of our friends, in picturing to us the horrors and hardships we were about to encounter in our explorations, made the following remark: "Talk about the privations you have undergone in America, but just wait un-

til you have to come down to black bread and ukale; the you will regret ever having come to Siberia." This startling announcement did not weigh much with us at the time; still for the benefit of our friend, who may perhaps see these pages I will here say that we were highly delighted with our ukale eating experiences, even without the black bread, of which we afterward became very fond also. I can conceive of no other article of food better suited for these winter journeys than the carefully-prepared ukale. It is light, convenient for packing, contains abundant nourishment, requires no farther preparation before being eaten, and is very palatable indeed. We had already acquired such a fondness for it that we had no notion of renewing our journey without first having secured a good supply of it for road use.

During the afternoon our journey was much enlivened by a very spirited fox-chase, which, though of short duration, gave us a fine opportunity of judging of the speed at which dogs can travel when under the influence of excitement. The ice was smooth and frosted just enough to afford excellent foothold for the animals. When first seen, the fox was about half a mile ahead of us, in plain view upon the ice, but did not appear to regard our approach until the keen eyes of the dogs detected it, and started in full pursuit, with the wolfish yelps. It was glorious riding while the race lasted, but soon the fox took shelter in the woods on the north bank of the river, when the chase was abandoned.

The sun set at 4 P.M., while yet about twelve *versts* lay between us and Oudskoi. The light of a new moon enabled the drivers to pick their way during the next hour and half, at the end of which, chilled and frosted, upon rounding a bend in the river, we came in full view of six or eight long log buildings pitched upon the north bank in a very exposed position. The warm lights gleaming through the ice windows were laden with a degree of cheerfulness which completely aroused us from a state of lethargy into which we had all subsided since darkness and the increasing cold had set in. During this last hour's travel I had suffered more from cold than at any time previously since commencing our journeys, though the thermometer indicated but -11° Fahrenheit.

group of buildings was Oudskoi. The delighted bark-our dogs aroused the inhabitants, who gathered about the doors of their huts, curious to know what travelers would break in upon their wonted quiet and security so un-announcedly; and still greater was their astonishment as we saw our sleds stop before the ispravnik's head-quarters, that they knew us to be strangers.

This little Russian outpost is so far isolated, and so difficult access during the winter, that no one ever thinks of leaving it. The only communication its inhabitants have with the civilized world is when the Russian supply-train touches at the mouth of the Uda River each summer with a year or two's provision for the ispravnik and his Cossacks, and to convey back to the Amoor the annuities or taxes collected in furs by them from the natives resident in the district. Under these circumstances, an arrival of sleds even from Algasee is considered an event; more so when utter strangers, and foreigners at that, appear at their thresholds.

On dismounting at the ispravnik's door, we were all surprised at hearing Swartz greeted in true, generous American fashion accompanied by a familiar slap on the shoulder, and then introduced to Captain Hutchinson, an American officer, who was a member of the Company we had expected to meet at Tugur. He and Swartz had been old friends serving together with the Russian-American Fur Com-

Neither had the slightest idea of meeting the other, years having elapsed since they had seen one another. The reception by the ispravnik was very cordial; so great a delight, according to his own confession, in finding that we were not a party of Russians sent to supersede him, which event he thought quite possible under the management of governors at Nikolayefsk. He was a young man about thirty years of age, but his countenance bore marks of a rather dissipated life. Drinking vodki evinced largely in the social enjoyments of Oudskoi, his only companion being the priest. I looked about for books, the usual companions of solitary individuals, but not a page of printed matter could be seen. We were at first utterly at a loss to know how the long succes-

sion of tedious days were whiled away by him, but later during our sojourn we had abundant opportunity for observing.

Our furs were barely removed when vodki was produced, and, it being a part of Russian etiquette not to refuse drink, we indulged in "piat nadsat carplets" (fifteen drops), as it is called, though no one is expected to limit himself to that exact quantity. Soon, however, invitations to drink fell so thick and fast that we were obliged to decline for fear of the consequences; nevertheless, our host continued to imbibe singly until the opportune arrival of the priest supplied him with a fellow-convivialist. The surprising ease, grace, and agility with which this long-haired and robed gentleman emptied glass after glass of the liquor would have done credit to any Bacchanalian association. It did have its effect upon him, though. After about half an hour his mirth exceeded all bounds, and, his eyes gleaming with ecstatic frenzy, he seized a small three-stringed Cossack instrument, and striking up a monotonous quickstep, began dancing about the room, whipping his long hair back and forth, and accompanying his antics with a wild, peculiar air, sung, however, with a very good voice. The performer being one of the holy members of the priesthood commonly known as Father Ivan, and at that very time wearing the garb and crucifix of his order, it may not be surprising that this scene struck us a little peculiar.

At length, supper being announced, we were ushered into an adjoining apartment, and seated at a small table about two feet in diameter, upon which was placed a dish of hashed meat and potatoes, a decanter of alcohol, and six forks. Not being conversant with Oudskoi customs, upon being requested to eat, we naturally waited for plates, when Swartz informed us that all were expected to eat from the same dish, and set us a worthy example by transfixing a fine potato and conveying it to his mouth. After this all passed as merrily as our ignorance of Russian and our host's ignorance of the English language would admit of.

During the repast, at the request of Father Ivan, Swartz interpreted to us the pith of a good joke and a little sharp practice played by him upon the ispravnik the night before.

our arrival, which, as it throws a little more light upon Oudskoi life, may be worth inserting. It seemed that the two had been indulging frequently in gambling with varying success, though the priest was generally the more successful of the two. The night in question they had played until daybreak, by which time the pious father was the winner of about one hundred roubles. Both parties were absurdly superstitious, and each attributed his good or ill luck to some particular cause. This cause the priest edified us with, much to the discomfort of the ispravnik, who had been ignorant of it hitherto.

At the commencement of the game the priest had drawn a hideous picture of his satanic majesty on the lower side of the paper upon which the record of the game was kept, and, from superstitious motives, had placed that side of the paper next the ispravnik, believing that it would cause him ill luck. As the game progressed, contrary to his expectations, the ispravnik won so steadily that the priest became at once satisfied that in turning the picture from himself he had injured his own fortune. The manner in which he remedied the matter, and the consequent change in luck, were among the causes of his mirthfulness during the evening. While his competitor was not observing, he made three crosses upon the forehead of the picture, and, having blessed it and christened it the Almighty, turned it next himself; from that moment he claimed that his fortune changed. This converting of the picture of Satan into one of the Almighty by making the three crosses upon it, and the blessing he bestowed upon it after the usual Church form, for the purpose of bringing him luck at the gaming-table, were regarded by the robed hypocrite as indications of the highest strategic ability on his part. When at length the evening's events terminated, we gladly threw ourselves down upon our fur pallets to sleep away the weariness of our day's journey.

The following day, November 26th, being Sunday, we attended service at the small chapel. It had not been the priest's intention to hold service; but, upon learning that we had not yet witnessed the forms of the Church, for our especial benefit he said he would alter his intention.

By the light of day Oudskoi appeared far less attractive to

us than it did the night before with its small, glowing windows. Though dating from about the middle of the seventeenth century, it at the time of our visit comprised not more than ten log houses besides the chapel, and these were divided about equally into two small groups, both on the north bank of the Uda River, and about half a mile apart. Over the lower one of these the ispravnik presided, while the priest and church were located in the upper one, upon a bluff about fifty feet in height, overlooking the river. The church was a



OUDSKOL.

small, plain log structure, crowned with a low tower and dome: it stood upon the most exposed part of the bluff, so that winds from all quarters might find ready access to the interior through various cracks and holes between the logs. Like all Greek churches, it was unprovided with pews or seats for the accommodation of the congregation, the score of simple-minded, religiously-inclined natives and Cossacks in attendance being all either standing or kneeling as we entered. Opposite the entrance, back of the altar, through a latticed door leading into the "sanctum," we could see the figure of our last night's companion, dressed in a long, beautiful robe, woven in scroll-work figures from blue silk and

gold threads, bowing and chanting before a crucifix, while a "dichox," or deacon, and two young Cossacks, with very sweet voices, responded from a small alcove at the right of the altar. Upon each side of the latticed door hung gilded chandeliers, containing candles large and small; and upon all sides, painted upon panels and banners, were pictures of various saints, some of them beautifully executed, in front of each of which stood, or were suspended, clusters of wax candles. Some of these pictures appeared to be several centuries old, and had been conveyed from Europe.

I could not but experience a feeling of reverence as we entered the little chapel and saw the sincerity expressed upon the countenances of the humble audience, though entirely different emotion on our part would hardly have been surprising, knowing as we did the mockery and hypocrisy with which the forms were being conducted. But even the countenance of the Bacchanalian priest had assumed such a sacred and reverential aspect as to defy our powers in reconciling it with that of the creature we had seen the night before.

At the close of the service, many of the congregation approached the priest and sought his blessing. Among them we were surprised at seeing a Cossack sergeant, the second in command of the town: this man resided with the ispravnik, and was perfectly acquainted with the character and doings of the priest. How he could approach him with any degree of confidence in his holy powers was a mystery which I have never been able to solve.

Yet, notwithstanding the carousals and blasphemies of this strange individual, so repulsive in a churchman, he had some good traits. The hospitable disposition which we had thus far found so prominent a characteristic of Russian nature was in him also well developed—so much so, in fact, that, notwithstanding the feelings of disgust with which my recollections of the man are crowded, I can not now and then avoid entertaining some very slight regard for him. The more we came in contact with members of the brotherhood, the more confirmed we became in our first impressions of them received in Kamtchatka. We found them generally very unfit persons to be trusted with the spiritual welfare of any people, heathens or what not.

The priest's house being near the church, by his invitation we accompanied him home and received an introduction to his family, comprising a plain but amiable-looking wife and two bright little boys. The three, however, wore such broken-spirited, frightened expressions in the presence of the *pater-familias* as to attract our attention. This, we afterward learned, was attributable to a very free use of the rod, since flogging is a right reserved to the more muscular sex in this country, and is practised upon wives as well as children. The house being large, comfortable, and only partially occupied, at the earnest and kind solicitations of the priest, we fixed upon part of it as our quarters during the remainder of our sojourn in town. Here we would have to procure fresh deer for the journey to Ajan, and as the *ispravnik* had thus far been able to give us but little aid or encouragement in obtaining the necessary animals, we anticipated a long and tedious delay.

The following pages are transcribed almost literally from my journal, written at the time of our four weeks' delay, and, being a record of nearly all we saw, felt, and heard in this wilderness village, I submit it to the reader as a description of Siberian frontier life.

The second evening after our arrival in Oudskoi the *ispravnik* gave us a "vechourka," or dance, at which all the beauty and chivalry of the place were assembled. The "beauty" consisted of four very homely peasant-women (the wives of some of the Cossacks), and the "chivalry" comprised the *ispravnik*, his doctor (a lean-looking individual, with his hair cut fighting-fashion), the *dichok*, and four or five Cossacks, besides ourselves. The Cossacks comprised the orchestra, and sang lively Russian airs to dance by. The affair was held in the house of one of the Cossacks.

After being introduced to the hostess—the best-looking of the feminine portion of the inhabitants—we were ushered into a small room about ten feet square, with a row of benches arranged around the sides to accommodate the guests. Tea was served, during which the Cossacks struck up one of their national airs. This finished, the whole party joined in a song and the ladies sprang from their seats into the middle of the room, each throwing a handkerchief upon some gentleman.

as a challenge for him to dance. In an instant one of them had me by the arm, hauling me out upon the floor by main force. I would have objected, as I had no idea of what was going to be done, and preferred looking on for a while, but Swartz said the lady would feel offended if I refused to dance with her.

Upon looking about me, and seeing that Mahood had been nounced upon in the same unceremonious manner, without farther ado I resigned myself wholly to the will of my partner. She took my hand, and commenced promenading around the small space, as did all the others, at the same time singing to me something in Russian that I know must have been very sweet, from her tone and manner, and the bewitching looks she gave me from the corners of her eyes. Fortunately I could not understand it, as it would, without doubt, have been completely overpowering.

This was the longest song and dance I had ever participated in. Around the room we walked without cessation for half an hour, every body red in the face from the exertion of singing, and all looking as though they were striving for a wager to see who would split his or her throat first. Just as I was about giving up all hope of the thing ending at all, the song suddenly ceased, and my partner, stopping, turned her face up to mine. She evidently expected something, but what I could not tell, so anxiously awaited some farther development. My feelings were soon relieved, however, by hearing a confused smacking noise on all sides, that sounded familiar; but, to assure myself, I glanced around, and, upon finding that my ears had not deceived me, I did likewise, of course. When the affair had ended, I remembered having danced something similar about eighteen years before, while in short dresses.

In a few minutes the same performance was repeated to another tune for variety, and we went through it without a blunder. At the end of every second dance diluted alcohol was passed around, and after every fourth one tea was served. This was greatly relished, as quarts of it were consumed by the thirsty assemblage.

There were only two dances that seemed to be in favor with the élite of Oudskoi, or, if there were others, they were

so like the first that I did not discover their distinguishing peculiarities. The second was even more complicated than the first; to perform it, four persons and two chairs are essential. First, two gentlemen sat upon the chairs, which were placed in the middle of the room, facing each other; then two ladies took out their pocket-handkerchiefs (for, though handkerchiefs were not generally a part of feminine apparel here, yet each lady kept one especially for these occasions), and paraded around the chairs, occasionally passing between them, now and then raising their handkerchiefs above their heads, and assuming graceful attitudes. All this time they were singing at the top of their voices. This was the first figure; for the second the ladies sat, and the gentlemen did the walking. The dance terminated, the same as the first, by kissing.

All the ladies wore calico dresses of a very antique pattern, crinolines not having, as yet, been adopted. Instead of the low-necked, or, as they might with propriety be called, body-less dresses of civilization, they wore very high-necked ones. In addition to these, their shoulders were protected by a small shawl, pinned with the greatest precision, so that no portion of the neck was visible, and hardly the ears. They dressed in this manner, not for the sake of propriety, but because they thought it becoming. The sleeves were long and very tight, and the skirts so small that no gathers were necessary at the waist. Their heads were covered with red, yellow, green, or figured pieces of cloth (according to the taste of the wearer), worn something after the style of negro women in the Southern States of America, and giving them the appearance of being bald-headed, were it not for a small, well-greased lock of hair which protruded from beneath the turban on each temple, and, with a short, graceful curve, retreated to cover about an inch above the ear.

The ball ended about 11 o'clock, when we retired, about as much exhausted as if having made a long day's journey.

While here we derived no small amount of amusement, as well as exercise, in learning to use the snow-shoe, which we thought would probably be an important aid in our future journeys. These snow-shoes were made of white birch, about six feet long by eight or ten inches in width, and were

ived down to not more than a quarter of an inch in thickness, making each pair weigh about eight pounds. They were made with skin taken from the legs of the elk, deer, or horse, etched so that the hair flowed toward the heel, making them glide forward very easily, and preventing it from slipping backward while making an ascent. The skin of the elk is best, but is hard to obtain, and that of the horse is also very good. On the sea-shore sealskin is used for the same purpose. A person can travel much faster with these shoes than he can walk; for, though he steps much the same, yet, in addition to the length of the pace, the shoe slides several inches with each stride.



SNOW-SHOE.

Men and boys make use of them for sliding down hill for amusement, as a substitute for sleds, and become so expert that they can descend very steep and long declivities at almost lightning speed, standing, and preserve their balance without the use of the polka, or staff, to lean upon. The snow-shoer always carries a staff, it being a great assistance while traveling, either on a level or in ascending a hill, and serves as a break to check his speed in making a descent. We made a daily practice of going to the steep river-bank, near the church, for sliding, and soon became so expert that, on one attempt out of three, we could reach the foot of the bank without falling. The first time I attempted it without a staff, just as I started over the brink my companions said the devil made the sign of the cross over me, and, as I reached the bottom without a fall, I attribute it wholly to his supernatural power. With good shoes a person can ascend an inclination of 40° without slipping backward.

CHAPTER XIII.

Russian Steam Bath.—Its Effects.—Our Quarters.—Temperature.—The Saints as Bankers.—Thievish Propensities of Natives, and Superstitious Notions.—A peculiar Disease.—Heartless Proceeding.—Taken by Surprise.—A helpless Victim.—Remedy.—Horse-meat Experiment.—Eating Entrails.—Ispravnik's Disinclination to aid us.—Dispatch Tungusians after Deer.—Arrival of Yakout Caravan.—Our good Luck.—A great Occasion.—Baptismal Ceremony.—Mahood's Predicament.—Spitting upon the Devil.—Russian Names.—Congratulations.—Duties of Godfathers.—Great Prasnik.—Patron Saint of Siberia.—Name's Days.—Celebration.—Story of Saint Innocentia.—The Starobradets.—Miraculous Interposition.—Saint Nikolai's Day and Salute.—Blessing Images.—Religious Farce.—Rascally Priests.—Tungusians return.—No Guides.—Mainukan Route.—Discouragements.—Our intended Route.—Fresh Outfit.—Frozen Milk.—Ivan's Departure with Deer.—A farewell Vechourka.

FROM the day we left Nikolayefsk to the time of our arrival at Oudskoi—a full month—we had been denied the luxury of a bath, our light canvas tent and a temperature ranging from zero to -18° Fahrenheit making such an operation any thing but desirable. After our arrival, however, the kindness of the priest in placing his bath-house at our disposal no longer left us an excuse for neglecting this so important an operation. Once having tried the process, we frequently resorted to it as much for the luxury it afforded as for the sake of cleanliness. The arrangement of the priest's bath was much the same as that we had seen in Avatcha, near Petropaulovski, though it was more carefully constructed, and a good brick peachka or oven was substituted for the pile of cobble-stones, which in the former were arranged so as to be heated by a fire beneath. In addition, it had a better ante-room for dressing and undressing before and after the bath.

Upon the occasion of bathing, after having stripped and entered the steaming-room, we always took the precaution of wetting our heads in cold water before the heated water was thrown into the oven to generate steam; this prevents a headache, which is very apt to succeed the operation. Water was then thrown into the heated oven, and in an instant the

mosphere of the room was almost scalding, particularly at the upper platform, where for a while the heat was stifling, and we could with difficulty breathe. This sensation was immediately followed by a very heavy perspiration, that seemed to flow in streams from every pore, during which we lay upon the platform, and our attendants, taking bunches of switches, itched us from head to feet, producing a tingling but not pleasant feeling. When this operation was finished, the attendants took large basins of suds, and, with bundles of tow, rubbed us unmercifully, with utter disregard of our feelings, fairly rasping the skin off. After this we were stationed on the floor and soused with a basin of hot water; this rinsing was followed by another of tepid water, and then a large dish of snow-water was produced and dashed upon us, the lumps of wet snow lodging upon our heads and shoulders: this apparently disagreeable feature was by far the most pleasant part of the process. Our systems had become so thoroughly heated that, instead of feeling disagreeably hot, it only cooled the skin and checked perspiration. We could then retire to the anteroom and make vigorous use of coarse towels; after which, bundling up in our furs to avoid catching cold, we would adjourn to our quarters, where the sack usually had in readiness an abundance of hot coffee and tea. Half a dozen cups were nothing after one of these baths. This operation usually leaves a feeling of exhaustion and drowsiness, which suggests a "nap," and of all times, that the time *par excellence* to enjoy one.

Our quarters in the priest's house were roomy, and comfortable as long as the oven was kept heated, in spite of several broken window-panes that admitted the cold out-of-door air. The usual temperature of the apartments during the day was 35° Fahrenheit; this we found abundantly warm, after coming out for a month. We ate, drank, smoked, read, wrote, and slept in this one apartment, spreading our beds at night upon the floor. In one corner of the room were three other inferior paintings, made to represent the Savior and two saints, before each of which candles were kept suspended: these images were of considerable use to us, though perhaps in a different manner from that in which they were intended to benefit mankind. We had been frequently warned against

the thievish propensities of these Cossacks and natives, who we were told, will steal, though they usually take the precaution of crossing themselves before appropriating any thing and then, if no superhuman power prevents the theft, they consider themselves rightfully entitled to the coveted article.* But they hold these images in the greatest awe and reverence. Knowing this fact, for want of a better and more secure hiding-place, we deposited our funds behind them, and I have no doubt that they were as secure as if inclosed in an iron safe. Had any of them known the money to be concealed there, they would have thought it placed under the guardianship of the saints, and would have feared to molest it. The ispravnik himself was very superstitious; he assured us upon his honor that he had twice seen "his satanic majesty."

A few evenings since I had an opportunity of observing the effects of a very peculiar disease with which many of the natives of these regions are afflicted. Women are more generally the unfortunate ones. It occurred during a visit at the ispravnik's house. Under pretense of wishing to speak to me, the ispravnik asked me to accompany him to the kitchen where were eight or ten natives, Yakouts and Tungusians. Among them was a very old woman, apparently tottering upon the brink of the grave, whom I had not before observed. We had scarcely entered the room when the ispravnik uttered a quick scream, and sprang toward me as if to strike me. Instantaneously the old woman gave a scream also, and, before I was hardly aware of her presence, sprang at me like a maniac, gnashing her teeth, and pawing and belaboring me with a rapid succession of feeble blows. I was at first so much astonished as not to know whether it was sport or not, but endeavored to laugh. Soon, however, upon the ispravnik's continuing his shouting and jumping, I perceived that the poor woman had no control of herself whatever, but that she was furious with excitement, screaming, jabbering in Tungusian, and beginning to foam at the mouth: in fact, she was perfectly at the mercy of the ispravnik, who was fairly shal

* Notwithstanding this assertion of those whom we met in the country, never, except in one instance where a little liquor was taken, did we miss anything that could be attributed to theft.

ing with delight at the sport, utterly regardless of the feelings of the victim. Upon comprehending the state of affairs, I requested him to stop, when he appeared perfectly astonished at the lack of appreciation I manifested. The woman, immediately after the excitement, was taken with violent spasms, from which she did not recover for nearly three hours. Upon inquiry, we learned that these cases had utterly defied the powers of doctors throughout the country, though every conceivable remedy had been tried. As a last resort, at the town of Yakoutsk, they had tried flogging the patients, thinking by intimidation to arouse the resistive powers of the unfortunates; but, after very severe whippings, they were the same as before—entirely at the mercy of any feelingless beings. I afterward encountered similar cases nearly as far north as the arctic circle. Many times it was very dangerous to excite those afflicted, as they spasmodically make use of whatever weapon or implement lies within their reach.

Ever since our arrival, the ispravnik had been preaching to us the deliciousness of horse-meat, and employed such eloquent arguments in its favor that we were at length prevailed upon to test its qualities. He told us he had some very nice fat meat, young and tender, and would prepare a meal for us whenever desired. It was not without great reluctance we accepted his kind offer, since a vision of that hideous head at Algasee presented itself invariably whenever the subject was broached; but, being fortunately gifted naturally with pretty strong stomachs (which, by the way, we found very valuable appendages on many occasions), and, in addition, having subjected them to a systematic training for emergencies since commencing our winter journeys; prompted somewhat by curiosity when the Cossack announced that the dinner was awaiting us, we threw on our furs, and went to the ispravnik's with the determination to hazard a mouthful, at any rate. As soon as we entered the house we noticed a peculiar odor, which was not most pleasant, as it was very suggestive of stables and barn-yards. We sat at the same little table as on previous occasions, the only dish being that containing the meat, around which were ranged half a dozen forks. The meat appeared to have been cut into very

thin slices, and rolled around bunches of fat, which gave it somewhat the appearance of sausages cut into short pieces. After fortifying ourselves with "vodki," the ispravnik appropriated a piece with his fork, and smacked his lips over it with such evident delight that we proceeded to the attack without farther ado. The meat was very tough, to say the least, and was as elastic as India-rubber. I don't know how long I chewed upon the first mouthful, but, strange suspicions coming to my mind, I was compelled to swallow it hastily in a half-masticated state. Perseverance will accomplish almost any thing, and in half an hour's time the dish was empty, though our host had eaten at least three quarters of its contents. We did not dare ask any questions until the meal was ended, when, much to our disgust, we learned that we had been eating the entrails. We thought nothing at all of eating *horse-steaks* after this, but I have never been able to detect any thing delicious about any part of the animal. It is very dry, tough, and coarse-grained, and is nothing in comparison with beef or venison for flavor. The only time I would recommend its use would be in cases of absolute starvation.

Immediately upon our arrival we had notified the ispravnik of our desire to continue our journey at as early a day as possible, and, as we were provided with written instructions from Nikolayefsk to all Russian officers and subjects upon our route to furnish us with what information and assistance we might require, we had hoped to be able to start in a very short time. Whether from a desire to enjoy our company for a longer period, or through utter carelessness, I am unable to say, but the only encouragement we could get was that we might be delayed here two months before guides and sufficient deer could be procured, and certain it is that no exertions were made in our behalf. One day, however, we chanced to hear that there were several Tungusian hunters camped within one hundred versts of Oudskoi, with reindeer, to whom we immediately started a native on snow-shoes, as there was no other conveyance to be had. From these hunters we managed to get the promise of a sufficient number of deer for our purpose, but they would not be able to reach town until about December 13th.

Through instructions from Governor Furruhelm, the ispravnik furnished us a new Cossack, named Ivan, to accompany us to Okhotsk. Yakov remained here, though the poor fellow was very anxious to continue the journey with us.

After the departure of our Tungusian on snow-shoes, several Yakout merchants arrived from Yakoutsik with trains of deer laden with tea, tobacco, and trinkets, to trade to the Tungusians for furs. The caravan had already come about 2000 versts (1250 miles), and had not yet half completed their journeying. They make these tours every winter, stopping at Oudskoi to procure passports.

We had been very fortunate thus far, happening to arrive at different places upon the eves of great occasions. During our stay at Nikolayefsk, that town was the scene of greater festivity and excitement than it had enjoyed before for a number of years. The change of governors, and consequent balls and banquets, were events not recorded in the annals of the place every day, or year either. Our arrival at Oudskoi was equally opportune, for we had hardly been here a week when the ispravnik became a father.

The third day after the birth of the child was settled upon for the baptism, and, though it is customary, I believe, to have but one godfather and one godmother, the ispravnik wanted five, that we might all serve in that capacity. He finally reduced the number to three, the priest, Mahood, and Swartz officiating.

The ceremony took place in the ispravnik's house, where a number of the Church ornaments had been previously carried. Captain Hutchinson and myself composed the audience, but did not arrive at the house until the ceremony had commenced.

In the middle of the room was a stool covered with a white cloth, upon which sat a large basin of warm water. The priest stood near this, chanting, bowing, and crossing himself to the images in the corner of the room, the dichok and his assistant occasionally responding, also chanting. In a line back of the priest stood the godfathers and godmothers, each holding a large candle wound spirally with gilt paper, and on the left of these stood the midwife, with the child in her arms. Midwives, I am told, draw a regular salary from government for

their services. The priest also held a candle, and was dressed in a dark green robe ornamented with gilt. The ceremony being in Russian, I was unable to understand what was said, except as passages were interpreted to me. Free use was made of the censer, all bowing and chanting in the mean while.

Once the priest faced the godparents, and they having turned their backs to him, he commenced questioning them, to which they replied by spitting upon the floor. They were spitting upon the devil in the name of the child. The priest then blessed the water, making a cross in it with his finger, after which he advanced to the child, and named it *Innocentia Petrovitch*—*Innocentia*, after the great saint, and *Petrovitch*, which means son of Peter, after the father. This is always the custom in Russia. The first name is that of some saint, and the second that of the father, with the syllable “vitch” or “itch” affixed. In speaking of a person, his family name is rarely used, even the present Czar being generally known as *Alexander Nikolajovitch*.

The priest then took the child in his hands, and, after repeating something, soused it three times into the water. In the mean time the godmothers were paying particular attention to Mahood, extending his arms and spreading cloths over them, all of which was involved in mystery to him, until the priest suddenly turned and laid the wet, naked little one in his arms, squalling as loud as its youthful lungs would permit. The movement was so sudden that Mahood came near letting the little one fall. Though the ceremony was very solemn and touching, I confess that the expression on Mahood’s countenance at this unexpected development drove all solemnity from my feelings. He said he “did not dare to move for fear of breaking it.”

After the priest had muttered a few words the child was passed to Swartz, and from him back to the midwife. It is expected of the godfather to give the child a crucifix and gown. These the priest donated, and, after blessing the articles, they were placed over its head. He then blessed the child, making the sign of the cross on all parts of its body, after which he cut, with scissors, a cross upon its head from the hair.

Toward the last of the ceremony the priest took the child and marched around the basin, the others forming a procession behind him, all chanting. The other godfathers each took the child and performed a similar ceremony, when all kissed the crucifix (the child included), and the ceremony soon ended. It occupied nearly an hour. After the baptism every body shook hands, and congratulated every body else on the escape of the child from drowning, I suppose, for it is astonishing how the little things can endure such a ducking as this one got.

Mahood and Swartz paid the priest several roubles for his services, as the ispravnik hinted to them that it was expected. He also quietly informed them that the midwife expected a fee, and that the candles were to be paid for. In answer to the inquiry whether there were any other items of expense, they were told that the godfathers are expected to present the child yearly with a few roubles, and that it was sometimes customary for them to present the godmothers with new dresses. The ispravnik then treated the party to tea, alcohol, and a lunch, when the baptism was completed.

The next day, November 26th (Russian, or old style of reckoning time, and December 8th of our mode), was the name-day, or christening anniversary of St. Innocentia. This is the greatest Siberian prasn timer, or holiday, since St. Innocentia figured principally in Siberia. It was after this saint that the ispravnik's son was named. St. Innocentia, the priest told us, was formerly an archbishop in Irkoutsk, and died some time in the commencement of the eighteenth century. Seventy years after his burial his body was disinterred, and found to be in a perfect state of preservation, which was the cause of his canonization. He is considered now the patron saint of Siberia.

Services were held in the church on the eve of the prasn timer, also in the morning, when a picture of the saint was placed on a desk in the middle of the church, before which the priest and audience bowed themselves, touching their heads to the floor. During the morning service sacrament was administered to the youthful Innocentia Petrovitch, but he had not inherited his father's love for wine, so made a great deal of fuss over it. The priest's younger son was also named after

this saint, and, to celebrate his child's name-day, the priest invited us to dinner. Name-days are celebrated here instead of birth-days.

After dinner the priest told us the following story concerning St. Innocentia, which he advanced as a convincing argument to prove the holiness of that saint. I give it as it translated to me.

There is a religious sect in Russia called the "Starobradets," who have seceded from the regular followers of the Greek Church of to-day. These Starobradets believe since the year 1666, no new, genuine saints have been discovered, and they have also adopted a different manner from the Greeks of making the sign of the cross. The regular followers of the Church, in crossing themselves, extend the thumb, first and second fingers, pinching the ends together and closing the third and fourth fingers. The Starobradets object to this mode, because, in making the cross, from the arrangement of the fingers one appears to be taking a puff of snuff, and tobacco in any shape they consider unclean. They extend the first, second, and fourth fingers, closing the thumb and third finger.

When Innocentia was canonized, a beautiful and costly image of him was placed in the principal church in Irkoutsk as an object of worship, before which large candles were constantly burning for a long time. At that time one of the Starobradets applied for permission to burn a candle before the image, without difficulty convincing the priests of his conversion to their belief, since so great a saint as Innocentia had been discovered, one whose authenticity could not be denied. His request was granted, and he soon returned with a large, beautifully-decorated candle, which was placed before the image with great ceremony, and all congratulated themselves that one of the unbelievers should finally become convinced of his error, and return to the fold of the true Church.

Late at night, one of the many priests connected with the church was suddenly awakened by a voice commanding him to go and extinguish that candle. He rubbed his eyes and glanced around his small, almost vacant chamber, thinking some one was in his room. The moon gave sufficient light for him to see distinctly, but no one was to be seen.

watching and listening some minutes, and seeing or hearing nothing, he felt satisfied that he had been dreaming, and soon fell into a sound sleep again.

A second time he was awakened by the same commanding voice, accompanied by a shaking, as though some one wished to arouse him suddenly. This time he opened his eyes quickly and sat up in bed, a cold sweat standing out upon his person. Every thing was as still as death; nothing to be seen but the rough, scanty furniture in his apartment, which was undisturbed, and had the same appearance as before. But his mind was troubled. He could not account for the strange voice that had for the second time aroused him from a sound sleep, and for the rough manner in which he had been shaken. He had seen or heard nothing while awake, and, thinking it might have been merely a dream, did not dare to take upon himself the responsibility of extinguishing the candle. Overcome with fear, he threw himself trembling upon the bed, but his mind was in such an agitated state that he could not sleep. Hearing nothing, he gradually became more composed, and fell into a troubled doze, sound repose soon following.

Again he was awakened by the same command, and was violently thrown upon the floor from his bed. Confused and frightened, he rushed from his apartment and aroused all the Church officials, to whom he related the incidents of the night. A grave consultation was held immediately to investigate the matter, at the end of which they decided to extinguish the candle, and proceeded forthwith to the church. Upon examination, it was found that the candle was loaded with powder for the purpose of destroying the image, and that it was extinguished just in time to prevent the explosion.

Monday, December 18th (New Style), was also a great prasniki—St. Nikolai's day, upon which all are privileged to get drunk without fear of punishment. The whole of Oudskoi, Cossacks in uniform included, attended service at the church. At the close of the service, while the congregation were kissing the image of St. Nikolas, six discharges were fired from three small brass pieces mounted upon a snow-bank. Yakov, our old Cossack, seemed to have command of the battery. He very bravely loaded the pieces, but ran when they were discharged.

In the afternoon the priest and dichok, with a choir of young Cossacks, took a large crucifix and basin of holy water, and proceeded to the different houses to bless the image in each, for which services they receive a fee from each family. This money, together with sums paid from time to time by the friends of persons deceased for passports to enable the dead to enter the gates of heaven, and for other similar services, are, I am told, considered the perquisites of the priest.

The Church and all its rites appear to be a grand farce when conducted by such a man as the father in this place. Gambling is his principal pastime, and once or twice since we have been here it has been necessary to ring the church-bell the second and even the third time to call him from his game in order to conduct the services. They have a saying in the country that "He is so great a rascal they will not even make a priest of him."

Oudskoi is in such an isolated position, and is so difficult of access, that the authorities rarely, if ever, take the trouble to investigate the manner in which affairs are conducted; consequently, both the priest and ispravnik have great scope for exercising their authority, and do things with impunity that would not be permitted under the supervision of the superiors.

On the 13th of December, the Tungusian whom we had dispatched for deer returned with a number of other natives from whom, after a good deal of parleying, we obtained sixteen animals for our journey to Ajan. At that place we expected to procure others. But none of these men were acquainted with the country east of the Juggur Mountain which we intended to explore for the route of the line, consequently we could procure no guides.

The only route ever pursued by natives in going from this district to that of Ajan is a very long and circuitous one, by the way of Yakoutsk, or the Maimikan River, far inland; but as this would necessitate very long and difficult transportations of supplies and material for the construction of the telegraph line, we determined to find, if possible, a more direct route between the Juggur Mountains and the sea, and one upon which dépôts could be established accessible to whaling

boats or canoes ascending many of the small rivers that have their rise in this range, and that flow into the Okhotsh Sea.

The two natives who were to accompany us were very dubious about attempting such a long journey in an unknown country; but we showed them our compasses, and explained to them how the little instruments would guide us if we became lost, and, after persuading and offering them liberal inducements, they consented to make the attempt. We ourselves had strong misgivings as to the practicability of the route we wished to pursue, but felt confident that, should we fail in the enterprise, we could, by some means or other, find our way across the main range, and strike one of the tributaries of the Maimikan, which we would follow to its junction with the Lena River, or until we struck the post-road between Ajan and Yakoutsk; but this latter route might occupy us two months, and, consequently, little would be accomplished in establishing a route for the line.

Our Oudskoi friends were as anxious for our safety as our Nikolayefsk friends had been, and declared that they could not be hired to undertake the journey; at the same time, in the way of consolation, they entertained us with fearful accounts of "poorgas," and of men and deer being blown from the mountain-tops and never again heard of.

We laid in another complete outfit of supplies, consisting of tea, beef, sugar, and "sukarie," or black bread dried in small cakes; also some Yakout butter, which is made without salt, and a few pounds of milk, the latter as a luxury. The reader must not be astonished at my estimating the quantity of milk by the pound. At this season of the year it is no longer a liquid. When once frozen, it can be carried in a bag for the rest of the winter, small pieces being chopped off with the hatchet for use as wanted. We also, before starting, cut our meat up into small pieces suitable for cooking on the road: this precaution saved us a good deal of delay and hard work in preparing our meals in camp. We had already engaged a supply of ukale from old Guilioff in Algasce. After having procured a fresh supply of fur socks and boots, and several good pair of snow-shoes (as we expected to make a great part of the coming journey on foot), we were once more prepared for the road.

The next day we started off Ivan, our new Cossack, with the Tungusians and deer, for Algasee, for which place we ourselves proposed leaving as soon as some dog-sleds that were expected from there should arrive.

On the eve of our departure the ispravnik gave us a farewell "vechourka," which did not differ from the first, except that a Tungusian dance was performed by four damsels for our especial benefit. Having stationed themselves upon the floor with arms crossed and hands joined, they swung slowly round in a circle, accompanying each step by a most hideous grunt, that seemed to come from the inmost depths of their bodies: this composed the music. With each grunt they made a short, quick squat of the body, their movements gradually becoming more rapid as the dance progressed. They then went through a series of very ridiculous, indescribable calisthenics, twisting their bodies, whirling on their heels, and throwing their arms and hands into every conceivable position. These movements were kept up until the throats of the dancers became so sore that they could no longer grunt, and then the dance ended.

CHAPTER XIV.

Russian Parting.—Cossack Parade and Parting Salute.—A Night Journey.—Tungusian Hunter.—Deer devoured by Wolves.—Off for Ajan.—Along the Sea-shore.—The Cliffs.—Ice-bench.—Difficult Passage.—Antin River.—Christmas Eve.—A Winter Camp Scene.—Difficult Journaling.—The Day's Journey.—Goram River.—Unfavorable Prospect.—Christmas.—Cold and difficult Traveling.—A fruitless Effort.—Our Intentions.—Grand Scenery.—Caché and Fox-trap.—Scurvy.—A Consultation and Conclusion.—Arduous Traveling.—Burned Land.—Activity essential.—Uncertainty.—Frostbites.—The coldest yet.—Telefont and his merry.—Routine of Camping.—Thawing out.—“Chi gotova.”—Source of the Goram.—On the Summit of the Juggur.—The View.—Difficult Descent.—Misled by Wild Deer.—Another hard Climb.—Swollen Ankle.

Tuesday, December 19th.—Clear and cold. This morning thermometer indicated -18° Fahrenheit. We were up getting our baggage in readiness to start for Algasee and the nartas that arrived yesterday, and, after breakfast, adjourned to the ispravnik's as he had requested. Sometimes we essayed to depart, but each time the departure postponed to take one more farewell drink of alcohol. After sitting in our furs for several minutes we arose to go, then commenced the ceremony of bidding a Russian farewell. Each individual, male and female, old and young, handsome and homely, had to be kissed three times; for, though we would have much preferred omitting this part of the ceremony, they all expected it, and we had to comply with the custom. We then seated ourselves for a few moments, during which not a word was spoken, at the end of which time we were in the proper state of both mind and body to commence our journey. As we emerged from the door the Cossacks of the place were drawn up in line on one side of the door with muskets, and all the other inhabitants were strung out opposite them, paraded in honor of our departure. After “preparing” arms, the Cossacks went through the manual for our occasion, and, when our dogs started, a parting salute of three volleys was fired. The ispravnik accompanied us two or three versts, when the parting ceremony was repeated, and we turned our backs on Oudskoi probably forever, though we

did not think it at the time. Recent snow-storms had nearly destroyed the beaten roads, on account of which our progress was rather slow, and it was two o'clock the next morning before we arrived at the huts of Algasee. The thermometer stood at -13° Fahrenheit all night, but we managed to keep warm trotting by the sides of the sleds most of the time.

At Algasee we found a Tungusian hunter, from whom we learned that if it should be necessary to cross the Jugg range, we could do so by following his trail up the "Gorai River, which was about one hundred and fifty versts distant and then cross to a tributary of the Maimikan, where his family were camped. He intended returning soon to his home and would probably overtake us somewhere on the trail. Our deer had arrived two days before, and were at a feeding ground about three versts distant, where our men watched them by turns.

On the morning of December 21st, one of the men came with the discouraging news that wolves had eaten two of our best deer during the night before, and that eight others were missing. We at once started a number of men out to bring in the remainder and hunt up the missing ones. Those missing they afterward found and brought into Algasee. It was now too late to supply the places of the two killed, so we determined to push on, two of us walking upon snow-shoes until our loads should be sufficiently diminished to require to use less pack-deer, and then we would all be mounted again, unless others should be lost in the mean time. We started at 10 o'clock P.M., taking a northwest course from Algasee through the woods. This course we followed for about ten versts and then camped. After allowing our deer to feed a while we tied them up around the camp-fire, as on a former occasion, to protect them from wolves, whose tracks dotted the whole country. Thermometer, 6 P.M., -2° Fahrenheit.

We left camp the next morning with a strong southwest wind blowing clouds of snow against our backs. Swartz and I pushed ahead on snow-shoes for about three versts, where we came to the sea-shore. Here abrupt cliffs made down the water's edge, so we waited for the deer to come up. The bay appeared to be frozen as far out as our sight extended, the ice near shore being exceedingly rough and hummocky.

This was probably occasioned by storms and strong tides, which broke up the early freezings of the winter, and afterward, as the ice lay piled and jammed together, it had become re-frozen. Clinging to the sides of the cliff, all along the shore, was a thick shelf or bench of ice about fifteen feet above the existing level of the sea. The ice below was too rotten to risk our deer upon, and the cliffs could not be scaled, so but one alternative was left to us, that of working our way along the ice-bench. This, upon trial, proved to be very dangerous as well as difficult, on account of the narrowness of the belt in places, and the smoothness of the ice, which afforded very uncertain footing for ourselves as well as deer. Now and then we encountered large gaps, where huge blocks of the ice had loosened from the cliff and fallen; at such places our deer and packs had to be lowered by seal-thong lines to the jagged masses below, and, after passing the chasms, hauled up again by main strength. This kind of traveling continued for fully a mile, after which we no longer met with any difficulty.

While rounding these cliffs we sustained quite a serious loss in having several of our snow-shoes badly broken; but, fortunately, most of them could be repaired so as to be of farther use. Fifteen versts farther we arrived at the mouth of the Antikan River, a small stream emptying into the Okhotsk Sea. Here we ascended a precipitous bluff, and followed the trail of the Tungusian hunter, which led farther inland over a large barren. About seven versts beyond the bluff we came to good feeding-ground, near which were the frames of Tungusian tents standing, over one of which we spread our tent and camped for the night.

Our next day's journey was over an undulating country, interspersed with barrens and patches of woods, lying between the foot-hills of the Juggur range and the sea. As we advanced the foot-hills increased in magnitude, and at night they had assumed the grander proportions of mountains, crowned with high bald peaks. At noon we crossed quite a large stream that we took for the Goram, but afterward found that we were mistaken.

Sunday, December 24th.—This is Christmas Eve, a night of rejoicing throughout the world. How the little hearts

Many such are now clustering around with barely clothing enough to protect bodies from the cold winds, and are for the good things destined for others, while starvation are gnawing at their vitals. Dressed parties, dashing over the hard ice, the jingling of sleigh-bells, making the air ring with their songs and laughter, drivers and widows who are toiling at the sleds, striving to get the wherewithal to clothe their ones. For these there is no Christmas enough of grief and agony being shed to make the merriment of half the world.

But my musings on the *inside* world forget ourselves and present surround this desolate frozen country, entirely cut off from civilization with friends and civilization. After all. A strip of deerskin stretched over poles shelters us from the cold wind and crackles an immense camp-fire, the flames which rise and circle among the thick trees beneath which we are lying.

Mahood and Swartz are comfortable in their beds of fur, enjoying a social chat and Mahood votes his whole attention to the beefs he is preparing for the Christmas dinner.

tea. Our saddles and packs are strewn around on the snow, and beyond, the tree-trunks, reflecting the light of our camp-fire, stand out like spectres from the darkness. Here and there one of our deer becomes visible as the flames shoot up afresh, and pauses in his feeding as if to note our proceedings. To complete the scene, you must imagine the writer, clothed in furs from head to foot, seated cross-legged near the fire, with his leather-covered document-box by his side, upon which dimly burns a piece of candle. His thick glass ink-stand is placed in the hot ashes, to keep the ink from freezing. He dips his pen in the ink, and proceeds to record some brilliant idea or incident in his journal; but in the midst of the sentence the ink thickens on his pen and refuses to make a mark, when he thrusts it into the blaze of the candle and thaws it out to complete the sentence. This is journalizing in the open air in Siberia. My journal shows to this day the heavy black lines made by the ink as it gradually thickened from cold at the commencement of words, and the fine lines that immediately follow the result of the thawing. I used a pencil at the commencement of my journalizing, but the characters soon became so obliterated that I could hardly decipher them, when I decided that it would be cheaper in the end to take a little extra trouble and use ink.

But I have said nothing of our day's journey as yet. From last night's camp we took a northerly course over a country similar to that of the day before, occasionally crossing wooded spurs running down to the sea, and then passing wide stretches of barren land from which the snow was in many places entirely swept away by strong winds. Toward night we found ourselves abreast of a large gap in the mountain range to our left, and at sunset stood upon a high bluff looking down upon the almost dry bed of a large stream, about a quarter of a mile in width, which flowed from the gap in the mountains, and wound its way down to the sea, distant about three miles to the right. This we knew must be the Goram, but there was very little water in it, probably owing to the springs at its sources being frozen up. We had to unload the deer and slide them separately down the bluff about two hundred feet to the river-bed, which was strewn with large boulders and trunks of trees.

A few versts ahead of us, to the north, the mountain range ran down to the sea, and terminated in very high cliffs. Beyond these other very high mountains appeared, which discouraged us from making the attempt to reach Ajan by following up the coast. We did not find deer-food until long after dark, so concluded not to pitch our tent. To-morrow—Christmas Day—we will strike up the Goram with the hope of finding a passage to the northward, west of the mountain range.

Christmas Day.—We started up the Goram this morning, facing a cold, cutting wind that swept down the gap. As the river was covered with smooth ice, we had to travel in the woods on account of our deer. At one place we thought we detected a passage to the north, which we attempted; but, after climbing several hundred feet up the mountain side, we found ourselves confronted by an immense chasm, and our elevation disclosed other and higher ridges beyond, which discouraged us from proceeding farther in that direction.

With great difficulty we reached the bottom of the chasm and once more headed for the Goram, intending to try and find the old trail, and follow it until we should find an opening to the northward. Failing in this, all we could do would be to cross the main range and follow down the Maimikan. The scenery here was perfectly grand. The Goram winds through an immense chasm, on both sides high, rugged mountains rising to the height of thousands of feet. The bases of the mountains are clothed with dense forests of larch, but their summits are bald and snow-clad. In many places the river-bed is bordered by very high, picturesque cliffs and frowning precipices, to pass which we had to drag our deer over the smooth ice.

The next day some of our deer were quite badly hurt falling on the ice. We continued to ascend the Goram, the mountains gradually assuming still grander proportions. Riding was out of the question, as we all had to work hard dragging and assisting the deer. At night we arrived at the mouth of a good-sized tributary flowing apparently from the north, which we concluded to follow the next day. At the mouth of this river was a meat caché, erected on poles and built of

g. The under side of it was gnawed and torn by the teeth of foxes and wolves, where they had jumped up from beneath and snapped with their teeth, trying to get at the meat inside. There was also a fox-trap near this, constructed much like our "dead-falls." At night our Tungusians complained of swollen feet and legs, which showed every symptom of the erysipelas, but, as we had no medicine of any kind, we could do nothing for them. We camped in the open air near the mouth of this river.



FOX-TRAP.

December 27th.—Thermometer indicated -22° Fahrenheit. When we awoke, our beards and fur hoods were frozen together in a solid mass of ice. Swartz and I started in advance up this stream to see whether or not it would be possible for our deer to get along. We went a mile on smooth, easy ice, covered in places with water, for which we could not account at this temperature.

Steep cliffs arose from the river on both sides, so that there was no possibility of getting along except on the ice. We returned to camp and reported the prospects, when a consultation was held to decide upon our next step. Our men were all frightened at the idea of pushing up through an unknown chasm, fearing we might get lost in the mountains in

a poorga, and lose some of our deer. We did not know where it would lead us to, and, taking into consideration that we were already short of deer, and our men afflicted with the scurvy, or something of the same nature, which nearly unfitted them for the arduous traveling we were having, we decided that we were not prepared to risk it, even if we could get our deer along. Once more we headed up the Goram, hoping to find some Tungusian hunter to guide us, in which case, if not too late, we would retrace our steps should it be necessary.

On the Maimikan we would probably encounter natives, and, in the case of necessity, could procure other deer or provision, while by this route we could expect neither, and, being wholly unacquainted with the country, might be months wandering about in these mountains. The scenery increased in grandeur, and traveling became more arduous. All hands were constantly employed dragging and assisting the deer. This traveling was very wearing on them, with their heavy packs. At dark we struck burnt land, when our men, being exhausted, wished to camp. But the fire had destroyed all deer-food, so we pushed on, lighted on our way by a magnificent moon, and camped about midnight, not having found feed for our deer. Thermometer, 8 P.M., -22° Fahrenheit.

The next morning, the 28th, the thermometer indicated -22° Fahrenheit. Our deer were very much used up by the traveling of the preceding days, and the loss of food showed its effects upon them. We immediately pushed on, not even waiting to prepare breakfast, hoping to find deer-food soon, when we intended to stop and allow them to feed. The country was covered with the tracks of wolves and wild deer. Having gone five versts, we found a spot on the opposite bank of the river that the fire had not reached, and, after allowing our deer two hours to feed, we again pushed up the gorge, first traveling on one side, then crossing the smooth ice to the other, as the nature of the banks of the river permitted. We had not been traveling fifteen minutes before our beards and fur hoods were covered with ice, though the exertion of snow-shoeing and labor of assisting the deer kept us in constant perspiration.

After once becoming warm, and having our under-clothing

dampened, we were compelled to exercise violently until the time for camping, to prevent the moisture next our bodies from freezing, which might prove dangerous. This necessity for exercising I found very inconvenient as well as painful, having badly sprained my ankle early in the day. Being damp with perspiration, I was unable to ride my deer for fear of becoming frozen.

A recent fall of snow had obliterated all traces of the old trail, and we encountered so many other streams and cañons making into the one we had been following that we were entirely at a loss to know which of them to follow, but kept in each case the larger. This we intended to follow to the summit of the range, and then trust to fortune upon reaching the other side, should we not be on the route.

The next day my ankle was so badly swollen that I had to ride all the time, though the cold appeared to be intense. Swartz froze his nose, and did not even know of it until Ivan told him; a speedy application of snow soon restored it, however. Nature furnishes the remedy with the evil.

At 3.15 P.M. it was nearly dark, so we camped. It would hardly have been possible to recognize any individual of our party at the time we camped. Beards, mustaches, and furs were cemented together by a solid mass of ice, and even our eyebrows and eyelashes were frosted, making us look more like a troop of patriarchs on a pilgrimage than a band of young men on an exploring expedition. Our Tungusian, Telefont, froze his chin and toes. We rather mistrusted that it was uncommonly cold, and, upon consulting the thermometer, found that the spirit had fallen to -35° Fahrenheit, the coldest weather, by far, I had ever experienced.

Poor Telefont suffers a good deal from his feet and legs, which are badly swollen and breaking out in sores. But we are many long days' journey from any settlement, the nearest being Algasee; and, unless we encounter some Tungusian hunter from whom to procure other deer, so that he may ride sterner, I fear he will have to undergo a great deal more pain. Sickness and disease are bad enough when surrounded by all the care and comforts of home, but to be taken ill away up here on the summit of the Juggur, in midwinter, is fearful.

As soon as the deer are unloaded, all hands go lustily at

work with snow-shoes, digging in the snow and clearing a space to the ground large enough to pitch our tent in. By the time this is done the Tungusians have the poles ready for our tent-frame, over which to stretch the canvas. In the mean while the remainder cut boughs or small branches upon which to spread our beds. Ivan, the Cossack, is invaluable. The space for the tent is hardly cleared before he is on his knees in the middle of it, with his flint and steel making the sparks fly, and, before the tent is fairly erected, he has a blazing fire, over which our tea-kettles are suspended, full of ice or snow melting for tea. Then comes the unharnessing, or ridding ourselves of our heavy fur outer garments. Having first taken the precaution to thaw out, by the application of snow, any portion of our faces or hands that may be frozen, we all stoop around the blaze, putting our heads as close to it as we dare, and patiently wait for the ice to melt from our beards, so that we can throw off our furs, to which our beards invariably become cemented by the congelation of our breath. This occupies from fifteen to twenty minutes generally, at the end of which Ivan makes that most agreeable of all announcements to a frozen traveler, *Chi goto-va*—"Tea is ready.")

We rarely stop short of four steaming hot cups of tea, and even six are not considered extravagant. Our pipes are then filled, when the fragrant smoke absorbs all care and weariness resulting from the day's journey, and drifts off with it through the smoke-hole at the top of the tent. We then eat our supper of boiled deer-meat or beef, and "sukarie," after which the others retire, and I write up my journal.

We still adhere to the practice of undressing at night, regardless of temperature, and find that we sleep equally as comfortably, and endure the cold better than if we retained our outer clothing while sleeping. Every night, before the fire dies out, we take the precaution of turning our furs, socks and all, and drying them thoroughly for use the next day. Without this precaution, our feet and hands, at least, would be almost certain to freeze. Each morning we bathe our faces and hands in melted snow, and, after tea and boiled beef, strike out on the day's journey, making a lunch on the road from ukale, or dried fish.

he next morning it was still very cold, the thermometer indicating -31° Fahrenheit. As we advanced up the valley it may be so called, though it was a cañon on a grand scale the snow increased in depth, and the river diminished size until our deer could jump across it. We had been continually ascending since we first struck the Goram, Christ-Eve, and by this time, December 30th, had attained quite elevation.

At 12.30 the stream dwindled to nothing, and was lost in deep snow of the gorge. Here all signs of vegetation ceased, and we were confronted by a high barren ridge, which was supposed was the summit of the range. The view from the top was grand, but our hearts failed us when we saw that the ridge dipped abruptly on the western slope, and disclosed a deep basin or gulch, beyond which was another range to be ascended, unless we could find our way around the head of the valley. We were standing on the summit of the highest range of mountains in Eastern Siberia, confronted by a deep chasm, in which large trees resembled straws. Back of the gorge we had been following six days wound its way miles among lofty bald peaks, the dark woods thousands of feet below becoming more and more indistinct as the distance increased. On all sides towered still above us other peaks in their solemn majesty, while a silence that was death-hung over all. Fortunately the day was clear, though

on the ridge were fresh deer-tracks, which we at first took for a hunter's trail. We attempted to follow them along the narrow ridge, but were soon conducted to a high peak, the top whose steep icy sides neither ourselves nor our loaded pack could pass. This satisfied us that wild deer had made tracks. There was no alternative but to descend into the basin, and, having selected a long spur which appeared less steep than at any other place, we started down. The snow was so hard and crusted that we could get no foothold, and before had to use all our efforts to avoid slipping, in which there would be no stopping until we reached bottom, or slipped up against some of the tree-trunks far below.

The descent was particularly hard for our pack-deer, whose legs were constantly slipping forward on to their heads and

necks, making it necessary each time to stop the train and the loads before proceeding. The opposite ridge was equal as steep, but the snow was soft and deep. To break a path for our deer, we had to use both hands and feet, and with each step sank waist deep. In places the deer had to be assisted up separately, so that a long time was consumed in reaching the top. This ridge was the main divide between the waters flowing eastward into the Okhotsk Sea and those flowing westward into the Lena River, which empties into the Arctic Ocean upward of two thousand miles distant.

We descended into a wide, shallow, wooded basin, traveling about three versts from the summit, and, as ourselves and deer were completely exhausted, camped. My ankle had pained me very much all day, and at night was so much worse as to cause me some uneasiness. By night the thermometer showed a diminution of cold, the spirit standing at -13° Fahrenheit.

CHAPTER XV.

Indications of a Poorga.—Signs of an Encampment.—Deserted Camp.—Signals.—Lost Trail.—Hunters' Camp on the Maimikan.—Charge of Reindeer.—Tungusian Beauty.—Alexai.—Engaging a Guide.—New-year's Day.—Celebration.—Making Calls.—The Tent.—Beautiful Phenomenon.—Mock Moons.—New-year's Dinner.—False Alarm.—Cold Weather.—On the Back Track.—Driving Snow.—Lobla River.—Astonishing eating Capacity.—A Tungusian Supper.—Improvvidence.—The Yakouts as Eaters.—Cruel Mode of Killing Horses.—Fox-traps.—The Goram again.—The Econda River.—Keen Scent of Reindeer.—Kedrovnik.—Crossing Kela Khrebet.—Cutting Wind and Frostbites.—Snow-shoeing.—Undermined.—Crashing through the Ice.—Neamur River and Valley.—Ephraim Caramsin, the Bear-hunter.—Light Snow.—Method of Snaring Bears.—Mountain Sheep.

In the morning it was much milder, —8° Fahrenheit, and a light snow falling. Although Ivan and Telefont were both unwell, we pushed on to find a more sheltered spot, as there were indications of a poorga. We took a northwest course, following the outlet of the basin, and, though the snow was deep, succeeded in making a tolerable trail for the deer with our snow-shoes. After going about four versts, we came to an old trail nearly obliterated by drifted snow; this we followed until we came to another, comparatively fresh, near which were recent snow-shoe tracks. Thinking we must be in the neighborhood of some habitation, we followed these, hoping to learn of our whereabouts as well as to obtain extra deer. About noon we came to a large number of fresh deer-tracks, which showed that the animals had been feeding at the place some time, and a little beyond we found a deserted encampment. The poles of the tent-frame were freshly cut, and the space formerly covered by the tent was free from snow—signs of recent evacuation. Erected on high poles were rolls of birch-bark, deer-harness, and some cooking utensils, showing that the place was temporarily abandoned; and three leaning poles planted in the snow indicated the direction the family had gone. From these indications, we knew that the parties were expecting some one who was absent at

the time they moved, consequently settled in our minds that the encampment was that of the hunter we had seen in Alga-see.

Having taken the direction indicated by the leaning poles and followed it about three versts, we lost the trail, but afterward again found it on the west side of a low ridge, and in half an hour's time came to a Tungusian tent, about which were feeding twenty or thirty reindeer. These deer made a charge down on our train as soon as we came in sight, and a short fight ensued, but they were finally driven away, and not many minutes elapsed before the band was peacefully grazing with our own animals. An encounter took place afterward, however, in which there was a good deal of clashing of horns, but no injury done. I have represented the scene in the frontispiece of this volume.

As we had supposed, it was the hunter's encampment, but the hunter had not yet returned. Though there was but one tent, eight persons came forth to welcome us—two men, two women, and four children. One of the women, the wife of the hunter, was the finest specimen of Tungusian beauty we had seen. She appeared very pretty, for by this time we had become accustomed to the cast of features of these people.

We learned that we were on the head of the Maimikan, but the natives knew nothing of the route we had taken to reach it. We had lost our way, and it was only good fortune that enabled us to strike their encampment.

Alexai, one of the men who lived somewhere upon the route we had wished to take to reach Ajan, told us that, had we continued up the stream Swartz and I started up the previous Wednesday, after going a few versts we would have found better traveling, and would have been on the right route. He also informed us that, should we retrace our steps, we would reach Ajan much sooner than if we continued on by way of the Maimikan, and expressed a willingness to guide us if we would pay him. We were but too glad to accept his services. After a good deal of bargaining, our Tungusians got two deer for themselves, so that we once more felt confident, and were ready for the road. Alexai had his own deer and provision, but could not start for two days, as he wished to make himself a pair of snow-shoes. To this we readily

consented, to allow our deer a resting-spell, hoping also that Ivan and Telefont would be in better traveling condition by the time we were ready to start again. The hunter returned that night, though by a different route from the one taken by us.

January 1st.—At 8 o'clock A.M., -31° Fahrenheit. The commencement of a new year. Feeling that we ought to celebrate the day in some manner, we decided to do so by changing our clothing, which we had worn since leaving Oudskoi. This was not such a trifling celebration as the reader may imagine, and called for much more pluck than would be requisite in firing a national salute from 32-pounders. A light canvas tent, through which we could see our deer as they passed by on account of its thinness, and the temperature of -31° , made the operation any thing but agreeable.

After breakfast we decided to make a New-year's call upon our neighbors, and, though we could not speak a word with them, our call was fully as enjoyable as New-year's calls usually are. Their tent was constructed after the usual manner, over a conical frame-work of light poles. Over these was first spread a layer of birch-bark, sewed together in rolls, to protect the nicely-dressed deerskin covering from sparks on the inside. A small fire was burning in the centre of the tent, which filled the inclosure with a dense smoke; through this smoke, by careful scrutiny, we could barely distinguish a few squirrel and fox skins suspended to the tent-frame overhead, turned inside out, and drying. Loose deerskins were spread around over a layer of boughs, upon which the occupants were seated, the women sewing upon skin garments, and the men working upon snow-shoes or repairing deer-harness. We smoked and gazed until our eyes ached from the dense smoke, when, thinking we had done our duty, we once more retired to our own quarters.

Outside the atmosphere appeared to be filled with fine frozen particles like mist, though overhead the heavens were perfectly clear. At this time we witnessed one of those beautiful phenomena of which arctic travelers make frequent mention. The brilliancy of the sun was so subdued by the particles of crystallized atmosphere that we could gaze upon

it with the naked eye. About it was described a large luminous circle, faintly tinted with the rainbow colors, upon which were three dazzling parhelions or mock suns, one perpendicularly over the sun, and the remaining two one on either side, equidistant above the horizon. From each of these parhelions extended a bright train of light in contrary directions from the real sun, and the arcs of three other circles similar to the first were distinctly seen, one directly over and the other upon each side of the first circle, and coming in contact with it at the points occupied by the parhelions. The phenomenon was very beautiful, and lasted about two hours. In the evening we witnessed a similar appearance in connection with the moon, which, however, was far less brilliant.

Just as we were about seating ourselves cross-legged upon the ground to enjoy our usual dinner of boiled beef, we remembered having a small can of roast turkey packed away somewhere among our provisions, and thinking this a suitable time to break into it, we induced Ivan to hunt it up and cook it.

If the box had not been labeled "Roast Turkey," none of us could have had the slightest conception of the nature of the meat; but, thanks to good appetites and strong imaginations, we heartily enjoyed the treat. When the dish was nearly emptied, upon glancing up I saw a look of perfect consternation on Swartz's countenance, while he curiously eyed a small bone that he was holding at arm's length between his fingers.

"Why, what's the matter?" I said.

"Cat! by George, it's a cat! I've been trying to swallow one of the tail-joints."

At this startling announcement our jaws stopped working, and we were for some moments undecided whether to swallow that contained in our mouths or to eject it, though we decided upon the former. An examination of the unlucky bone immediately followed, when Ivan relieved our minds by the announcement that it was the neck-joint of some fowl that he did not know, and in a very few moments the cat, turkey, or whatever it may have been, had vanished.

As we intended making an early start in the morning, we

soon retired, the thermometer indicating, at 7 o'clock P.M., -33° Fahrenheit.

The rest had greatly benefited all of us, and on the morning of the second of January we once more started out with fresh vigor, having greater confidence in the ultimate success of our explorations than at any previous time since leaving Drell Lake.

We retraced our steps to the point beyond the deserted encampment where we had first struck the old trail after crossing the Juggur range, from which point Alexai, our guide, took a more southerly course than the one previously followed by us, and, after two hours' travel, with a strong cold wind blowing against our backs, we found ourselves once more east of the summit ridge, on the head-waters of the Lobla River, a tributary of the Goram.

Keen crystallized particles of snow were flying in clouds ahead of the fierce gusts of wind that swept down the gorge we were following, but, coming from behind, we experienced no great inconvenience from them, though, after camping, we were in constant expectation of having our tent blown down over our heads. All day long the temperature had ranged from -17° to -22° Fahrenheit.

I had often heard large stories concerning the eating powers of these northern natives, but had, up to this time, been disposed to doubt many of them. This night, however, we witnessed one of their moderate meals, which caused all my former skepticism to vanish.

Upon starting in the morning, some article had been left behind at the Tungusian encampment, and we sent one of our men back to get it. He did not again overtake us until we had been in camp two hours. After pitching the tent and arranging the camp, Telefont and Alexai, the two remaining Tungusians, sat down to a gallon-kettle of hot tea, and did not leave it until they had emptied it of the last drop. They then cooked a four-quart pailful of boiled fish and soup, the contents of which they also devoured. By this time Zakhar, the other Tungusian, came up, cold and hungry. The same pail was then cooked *twice full* of boiled beef, which the three emptied both times, even cracking the bones for the marrow. Then, after rinsing the pail, they cooked it full of "crupa," a

kind of mush, which they ate as soon as it was prepared. After all of this, either their appetites were not fully appeased, or else they feared to break off too abruptly, for they commenced eating dried ukale, even devouring the fish-skins which they first broiled in the flames of the fire. All this occurred in our presence. Our tent not being large enough to accommodate the whole party, it became necessary for the guides to camp outside. They had no sooner got their camp fire started than they commenced the preparation of other food, but I no longer attempted to keep an account of it. The last thing I heard after retiring was the cracking of beef-bones for the marrow.

The improvidence of these natives is equally as astonishing as their ravenousness. They will consume nearly a week's provisions in one night, and go hungry the remaining six days.

Swartz tells me that two years ago the Russian-American Company sent to Yakoutski from Ajan for a number of horses which were intrusted to the care of six Yakouts. On the road, one of the horses, by some accident, broke its leg and had to be killed, it being unable to travel. At night the six natives sat down to the carcass, and in the morning there was nothing left of it but the hide and bones. The head and intestines were not even excepted.*

The Yakouts, notwithstanding their amiable and peaceful dispositions, are generally very cruel toward animals. Their favorite mode of killing a horse for food is to bind it down strongly with cords, when the breast is cut open, and the one of them, thrusting his arm into the cavity, kills the animal by compressing its heart with his hand. They claim that it gives the meat a better flavor.

The general course of the Lobla River, which we follow to its junction with the Goram, was southeast, the scenery corresponding to that of the branch we followed in making the ascent—high, wild mountain ridges and peaks, with bare summits buried in snow, and their bases covered with a thick growth of larch-trees. On the way we passed a number of fox-traps similar to the one we had previously seen on the

* I afterward heard this same statement from several other sources.

Goram, all of which belonged to the hunters we had just left on the Maimikan River.

We did not reach the Goram until 3 o'clock P.M., January 4th, when we struck our old trail and followed it until dark, camping about two hours' travel above the mouth of the Econda, the stream we were to take for our northward journey. The mouth of the Lobla River was very narrow, and so pinched in between bluffs upon each side that we were not surprised at our passing it on the upward route; however, to prevent any mistake in future, we blazed a large tree at the entrance to the cañon. During our first three days' journey the temperature ranged between -4° and -25° Fahrenheit.

We started on the morning of the 5th, with the thermometer indicating -10° , and after two hours' travel reached our old encampment at the mouth of the Econda, where we had held our last consultation before deciding to follow the Goram. Taking our course up this stream, traveling mostly upon the smooth ice, at 2 P.M. we came to a fork in the river, one branch coming from the north and the other from the northeast. Our guide took the northeast branch, which we kept until dark, passing another tributary flowing from the eastward, and camped upon an elevated plateau on the eastern bank, where was an abundance of deer-food, though the snow was quite deep. Reindeer have very acute scents, and, though the snow may be six feet in depth, they can tell whether there is any feed beneath it or not by simply putting their noses to the snow. In deep snow it is very difficult for them to procure their food by digging, but by nature they are provided with such keen scents as to be able to tell the exact spot where the moss grows, consequently their labor is never in vain. Throughout this country grows a species of dwarf pine, called by the Russians "kedrovnik." It rarely attains a greater height than three feet, but spreads its thick, knotted branches horizontally over the ground, and is usually buried up in the deep snows of winter. This bush we found to be a sure indication of the proximity of deer-food, the knowledge of which fact may be of some value to future travelers in this region, if there should ever be any foolish enough to undertake a jaunt among these mountains.

The next morning, January 6th, our thermometer indicated

—20° Fahrenheit. The valley widened as we advanced, and the mountains on each side became less rugged. Larch, spruce, white birch, and poplars grew in the bottoms and on the hill-sides. We passed numerous forks and branches during the day's journey, up one of which an old trail led made by some hunter: this would have certainly misled us had we attempted this route without a guide. Even otherwise it would have been utterly impossible for us to select the right course from among the numerous branches we encountered, and we frequently congratulated ourselves that we did not undertake it. We could certainly have retraced our steps unless overtaken by some accident, but months might have been consumed in our wanderings, and nothing accomplished toward the main object of our undertaking. We estimated this day's journey at about thirty versts, which was a fair average for deer-traveling in these mountains. At night Alexai, our guide, came to us for provisions. He and the other men had consumed nearly all his food which he had provided for himself the first night, and now he was entirely without. Though it was not in the agreement, we had from this time forward to feed him from our own scanty stock, but put him on allowance as a punishment, as well as to make our own supplies hold out.

On the morning of the 7th of January the thermometer indicated —22° Fahrenheit. As soon as the deer could be gathered together and loaded, we started forward, most of us traveling on snow-shoes on account of deep snow. After being four hours on the road, we arrived at the head of the Econdá River, where all vegetation ceased, and the snow was hard and crusted over sufficiently strong to bear up our deer. Here we encountered a severe north wind blowing directly in our faces from a high ridge in front. The snow drifted in clouds, completely obscuring every thing, and making it necessary for us to keep within sight of each other, for fear of becoming scattered and lost. The deer's hoofs were hardly raised from the snow before their tracks filled with it, leaving no trail to guide any one that might be left behind. After a long and difficult climb, facing the wind, we reached the summit of the divide known as "Kela Khrebet," from the name of a river that has its rise in it.

Upon reaching the summit, our noses and faces were all more or less frozen, but an application of snow soon restored them. The northern side of the ridge was steep, and the snow hard for nearly three miles, offering such a fine field for snow-shoe practice that we could not let it slip by; so, once more strapping on our snow-shoes, away we dashed at a very rapid pace, sliding part of the time upon our feet, but a large portion of the way sprawled out on our backs. A few minutes brought us to timber below, where the snow was deep and soft, and snow-shoeing so difficult that we made but slow progress.

This night our journey was continued until some time after dark, in order to find food for the deer, and then, when we stopped, it was so late that we simply spread a few boughs over the snow to lie on, building a large fire at our feet. We found it a little cold undressing in the open air, with the thermometer showing -25° Fahrenheit.

Upon awaking in the morning, our beds were half undermined, and our feet and legs projecting over a pit about five feet deep, occasioned by the melting of the snow around our camp-fire. We traveled on snow-shoes all day, breaking a trail. Once or twice some of the deer broke through the ice on the Kela River, which in places had worn thin by the action of the water underneath. Though many of the loads were wetted, they sustained no damage, as the moisture immediately froze, forming an impervious coating of ice over them. At night our Tungusians had to kill one of their deer for food, a quarter of which we bought of them. The remaining three quarters was nearly all gone by morning.

The next morning we all strapped on our snow-shoes again and pressed forward, hoping that day to reach the Neamur River, of which the Kela is a tributary. The country was as rugged than that on the Econda, but still very hilly, and the valley was wider.

About 2 P.M., just as we were approaching the Neamur, my feet were so blistered from snow-shoeing that I was compelled to ride. The ice on the Kela was covered with crystals, which prevented the deer from slipping, and made traveling excellent. While riding leisurely along, watching for the first appearance of the Neamur, I was startled by hearing

a fearful crashing sound, as though a large building was falling about me, and instantaneously my deer dropped from beneath me, I following him as rapidly as possible. We soon brought up, and found that the ice had given way beneath, letting us fall about five feet; but, instead of getting wet, we were on dry land. After the river had frozen over in the beginning of winter, the waters had gradually subsided, leaving an ice-roof about six feet above the present river-bed. Beneath this we could see some distance up and down stream.

The Neamur at the mouth of the Kela is about four hundred yards wide, and cut up by numerous islands. It appeared to flow from a large valley far to the westward, its banks being almost level for long distances on either side.

Our guide had told us that an old Tungusian hunter, named Ephraim Caramsin, usually made his home upon this stream, and from him we were anxious to renew our supply of fresh meat. But where to look for his habitation we were entirely at a loss to know, since these hunters live hardly three consecutive days in one locality.

With the hope of finding some old trail to guide us, we pushed directly across the valley, keeping our course; and night coming on, camped about three miles north of the river, in quite an extensive forest of larch-trees. The snow here was not more than a foot in depth. This valley, the guide informed us, was a great resort of bears, on which account the old hunter had chosen it for his home. As a bear-hunter, he has an extensive reputation; annually about twenty of the animals become victims of his gun and snares.

CHAPTER XVI.

markable Endurance of Natives.—Meat Caché.—Encampment.—Sappho—her Self-possession.—Tungusian Toys.—Artistic Talent.—The Test.—Ephraim's Return.—Siberian Squirrels.—Tungusian Guns.—Economy.—Frying Bear-meat.—Bestowing a Present.—The Consequences.—Ingratitude.—Reindeer Tongues.—Sheep-horn Spoons.—My first frozen Nose.—Stupid Proceeding.—A tender Organ.—Precautions.—Mukta River.—Drowa.—Monotony.—Daily Programme.—Diana and her Nymphs.—Band of Tungusians.—Conveyance of Children.—Child's Costume.—Naughtara River.—Squalls and driving Snow.—Tent down.—Warm Day.—Maimai.—Hungry Deer.—Flight of a Nymph.—Ouey Khrebet.—Long, hard Journey.—Post-road abandoned.—Our Anxiety.—The Station.—A mixed-up Mess.—Exhausted.—Retire.

COLD seemed to have no effect upon these natives. Frequently, when we could not expose our ears for two minutes without having them frozen, they would go for an hour at a time with their hoods thrown back from their heads; and when it required constant care and attention to keep our noses from freezing, they did not appear to notice the temperature at all. The morning of January 10th I stood in perfect amazement at their disregard of the low temperature. They worked for at least half an hour with bare hands, packing up the tent and utensils for loading upon the deer, bundling the packages and lashing them together with icy al-thongs, without experiencing the least inconvenience apparently, while I partly froze my fingers striking a light for my pipe with a flint and steel, which did not occupy more than three minutes' time.

The night before, happening to go out of the tent after our men had retired, I passed their camp, which was near by. Their fire had burned to a pile of embers, barely affording light enough to distinguish the sleepers. They were lying curled up on small deerskins, with their backs to the embers, and their fur coats thrown loosely over their naked bodies. The coat of one of them—Telefont—had slipped almost entirely off his body, leaving his back and shoulders exposed to temperature of.—18° Fahrenheit, and, though his hair was

frosted, he snored away as soundly as if in comfortable quarters.

Almost constant snow-shoeing during the last few days had so weakened my ankle that I was once more obliged to take to my deer; but, fortunately, the snow was not very deep, and it was unnecessary to break a trail.

We had hardly proceeded three versts from camp when we came upon a meat deposit, or *caché*, raised upon posts like the others we had seen, near which were recent tracks; and a few rods beyond, upon emerging from the woods, we were saluted by the barking of dogs, and saw a dirty, smoke-blackened skin-tent standing near a small stream. The tent was vacant, but we took possession of it, knowing that the occupants were near. The barking of the dogs soon brought a couple of individuals from the woods—one of them a buxom lass of about seventeen, with large silver ear and finger rings, and dressed in very filthy skins, but having a very good-looking face, and the other her little brother, about ten years old. The young lady, whom we christened Sappho, told us they were the children of old Ephraim, and that their father was then out hunting squirrels and visiting his traps, so we concluded to wait for his return.

By smoking and drinking tea, we whiled away the time until 2 P.M., and then, as Ephraim did not return, concluded to pitch our tent for the night. Sappho did not appear to be in the least disconcerted by the presence of strangers, but sat down deliberately with her little brother to amuse themselves with a number of toy deer, bear, and mountain sheep cut from birch-bark with a pair of scissors. I picked up one of the toys to examine it, and was much astonished at the correctness of the figures: they were perfectly proportionate, and correct even to the minutest details, every prong of the antlers, the hoofs, and all being exact. The likenesses were much better than many I had seen made by those professing to be artists. We could not imagine who, in this wilderness, had the ability to make them, and were doubly astonished to learn that they were her own work. To assure myself, I asked her to make me two or three as curiosities, when she took a piece of bark, and, without previously making an outline as I should have done, began cutting, and in a few moments produced a

perfectly correct figure. I don't think I have ever before seen greater native talent for drawing than she manifested. The Chinese, however, are noted for their imitative powers, and I presume these people, who are probably descended from the same original stock, have a little of that faculty in their composition.

Ephraim returned just before dark, bringing three Siberian squirrels with him as the result of the day's hunt. These squirrels, the fur of which is known to almost every lady, are very handsome little animals. They have dark gray backs and white bellies, black heads, the ears consisting of long tufts of hair, and fine, large bushy tails, also black. They are usually shot with a small rifle carrying a ball about the size of a pea. One of these guns every Tungusian provides himself with. Upon getting a gun, they invariably chop the stock down to one third its original size the first thing, and then fasten to the stock, by a kind of hinge, two light legs or supports, upon which to rest the piece in firing, and so arranged that they can be doubled up to the stock and put in a skin covering with the gun when not required for use, for convenience in carrying. The old flint-lock is always preferred. Powder and lead are so scarce that hunters have to employ the greatest economy, and never shoot without rest, and then they get as near as possible to the game. Where it is possible, they watch for the bullet to strike, and dig it out of the snow for farther use.

Seeing a number of pieces of dried bear-meat hanging in Ephraim's tent, we expressed a desire to try a little of it for curiosity, and shortly afterward Sappho came to our tent with a piece weighing at least ten pounds. One taste was sufficient, as we found it very unpalatable. Had we tasted it blindfolded, we would, without hesitancy, have pronounced it to be smoked herring, the fishy flavor was so strong. We asked Sappho to sit down, at which she seated herself with the greatest deliberation, and proceeded to fill her pipe for a social smoke.

We had brought with us a number of bead necklaces and other trinkets for trading purposes, but had thus far been unable to make any use of them. Thinking to please our guest, Mahood fastened a necklace around her fat neck, at which she

expressed no feeling of gratitude or delight whatever, but, in a moment, began to make very unbecoming faces for a young lady, at the same time stretching her neck up and making vigorous efforts to swallow. Fearing that the necklace would be broken to pieces or she choked to death, it was speedily removed and fastened around her wrist, but no acknowledgment whatever was made by her.

Gratitude is a feeling of which these people are perfectly ignorant, except where they have been thrown in contact with the Russians. They have no word or words in their language to express thanks, but receive a gift as though it originally belonged to them, and have no hesitancy in asking for more. For this reason, the charm of making presents is wholly destroyed.

Shortly afterward Sappho returned, bringing us a number of deer-tongues—which, by the way, are the greatest delicacy of the country—also a number of things resembling sausages, which we afterward found to be bear-grease, a very good substitute for butter or lard in frying meat. For a little liquor, we purchased of the old man a young deer to kill on the road for food, and our men succeeded in exchanging some of their worn-out animals for fresh ones, so that we lost nothing by the delay.

The liquor he had received worked like a charm upon old Ephraim. In the fullness of his heart, or probably, more correctly, stomach, he insisted upon presenting us each before our departure with a spoon nicely made from the horns of mountain sheep. They were very acceptable, as the wooden ones with which we had started from Nikolayefsk had long since been demolished, and for some time past we had found it necessary either to drink our beef-soup or eat it with our sheath-knives.

The next night, just as we were preparing to camp upon the summit of a hill at the head of the Oulinkan River, a small tributary of the Neamur, Ivan came up to me, and very unceremoniously seized me by the nose, at the same time exclaiming "Hooda! hooda!" This I thought a rather strange procedure, and was on the point of retaliating, when he let go, and pointed to the snow. Mistrusting something, I put my hand to my face, and found my nose frozen perfectly hard

d insensible, of which I had been wholly unconscious, though had noticed that the tingling sensation had ceased during the last half-hour's travel. Stories I had heard of limbs breaking off when frozen, and of mortification ensuing, flashed before my mind in an instant, and the prospect of returning noseless was rather unpleasant.

But the sooner thawed the better; so, following Ivan's advice, I seized a piece of hard crust and began to rub the endangered organ lustily, pausing every few moments to scratch it with my thumb nail to try and detect some symptoms of returning sensibility. Gradually the organ became restored sufficiently for me to venture near the fire; but, upon entering the tent, my companions both started back, and at the same moment cried,

"Why, what's the matter? what have you been doing?"

"Nothing," I replied.

"Why, look at your face."

Not being able to comply very well with this last request, I felt of it, and found it besmeared with blood, when the truth flashed before me, the recital of which caused no small amount of amusement to the party. In my eagerness, while my nose was frozen and insensible, I had grated off the end of it with the hard, rough crust, the result of which was an enormous slab, that I had to carry for the next twenty days. The next day all the skin that had not been filed off the previous night came off of its own accord, the effect of the freezing, and if the statement of my companions can be relied upon, I was as by no means an ornament to the company.

Every few minutes during each day since cold weather had set in we had taken the precaution of testing the condition of our noses and faces by scratching them with our nails, at this time I had been taken unawares. When any portion of the body has once been frozen, it becomes much more susceptible to cold than previously, consequently it was an almost daily occurrence from this time forward to have my nose frozen, and one or two days it became so no less than the other times.

The next morning, January 12th, the thermometer indicated -31° Fahrenheit. We found traveling very bad on account of a thin crust through which our deer were constant;

ly breaking. At noon we struck the head of the Mukta River, a small stream emptying into the Okhotsk. We descended this stream about ten versts in a southeast direction to the mouth of the Orowa, a tributary flowing from the northeast up which we continued until 4 P.M., by which time it was dark.

January 13th.—Still very cold, -31° , but we started on after our morning tea and venison soup. We were now looking forward anxiously to the completion of our journey. The country was so monotonous—a repetition of the bald mountains and endless larch forest through which we had been traveling since leaving the Goram; and the incidents of one day's journey were so much the counterpart of all the other that we had long since ceased to derive any pleasure from traveling. Day after day this was the programme.

Fifteen minutes from camp—beard and furs cemented together by a solid mass of ice. About 11 A.M., frozen noses and sometimes fingers. At noon, break the ice off beard enough to allow ourselves to eat a dried fish and smoke, usually accomplished on the backs of our deer. The afternoon was devoted to scratching our noses and guarding them from freezing until dark, when camp was prepared, beards thawed and tea and venison soup disposed of, after which came our only enjoyment—pipes, followed by the most disagreeable task of all—journalizing. This was succeeded by sleep, from which to awake and repeat the programme. The only variety we had was in shifting from the backs of our deer to snow-shoes, and *vice versa*; and the only gratification, the knowledge that at the end of each day's journey we were so many versts nearer the end of our task.

In the afternoon we came suddenly upon a band of Tungusians just preparing to camp. They proved to be the family of Diana's brother-in-law. But I have neglected to state that Alexai, our guide, always went by the name of Diana, a name given him, regardless of sex, on account of the stately and majestic manner in which he glided off on snow-shoes followed by his nymphs—two forlorn lean deer. Just as we came up the Tungusians were unloading from one of their deer two little boys, who had been lashed together, and thrown over the pack-saddle while traveling, the one bal

ancing the other, like two packages ; and upon another deer the weight of a baby was counterbalanced by a large kettle. They were each sewed up in a single garment, jacket, pants, boots, mittens, and cap all in one piece, made of heavy reindeer fur, and nothing was visible but their small, shining black eyes and little red noses peering from the mass of fur. The youngsters did not seem to regard the temperature in the least, and appeared perfectly contented when stuck down in the deep snow to await the completion of the camp. Here we crossed a range of wooded hills to the head of the Naughtara River, which stream we descended in a northeast direction for about ten versts before camping.

The next morning we were awakened by loud flapping sounds, and hardly had time to spring from our beds to hold up our tent to prevent it from being blown over by severe gusts of wind. The squalls came every few moments, blowing a perfect gale for a short time, and then completely dying out. During these intervals of quiet we made spasmodic efforts to finish dressing, not finding it very agreeable standing in a half-nude state exposed to a strong wind at a temperature of -13° . While we were eating breakfast the tent came down, but we were then prepared for the road, so experienced no inconvenience.

Swartz and I started ahead on snow-shoes, leaving the others to follow with the deer, and did not see them again until night. All day long the gusts continued, blowing across the valley of the Naughtara, which is about three miles wide at this point, and at times almost lifted us from our feet. The snow drifted in clouds, but fortunately across our path. We would have been unable to make any headway against it had it blown in our faces.

The morning of January 15th was by far the warmest we had experienced since leaving Oudskoi, -4° . During the day we continued down the Naughtara valley, which increased to a width of ten versts, interspersed occasionally with stretches of "tundra," or barren land, and at night camped at the mouth of a tributary flowing from the north, called the Mai-mai.

January 16th.—We left the Naughtara River, taking a northeast course across a wide extent of nearly level coun-

try, crossing the Maimai and Tiemai Rivers, both tributaries of the Naughtara, but did not camp until two hours after dark as the snow was very deep, and we were unable to find deer food. These last hours were exceedingly disagreeable, the thermometer at -25° , ourselves and deer perfectly exhausted, and the night so dark that we had to let our animals take their own course. Even when we did camp our deer could not dig down to the ground on account of deep snow, so had to go supperless.

January 17th.—Thermometer -35° Fahrenheit. Left camp at 8 o'clock A.M., intending to cross Ouey Khrebet and reach a station on the post-road near to Ajan by night, at all expense of comfort. Our deer were hungry, and could obtain no food until we should reach that point. We sent Dian with his nymphs ahead to break a trail, but soon overtook him, as one of his deer had broken loose and ran off, leaving its load behind in the woods. Having dispatched Telefont after the escaped animal, we continued our journey. Our route lay up the Tiemai River.

Ouey Khrebet, a high, bold spur of the Juggur range, over which our course lay, loomed up grandly before us all day, but at 11.30 A.M. we had the finest view of it from a small tundra or barren. From this point I attempted to make a sketch of it, but froze my fingers before the outline was completed, and had to discontinue. The ascent was so gradual that by 2 P.M. we found ourselves on the summit with very little exertion. The day was exceedingly cold, but beautiful. Not a particle of wind was blowing, for which we felt truly grateful. We had learned to dread winter winds in exposed localities since our experience in crossing Kela Ridge.

The descent into the narrow gulch in which the Ouey River has its rise was accomplished upon snow-shoes in a very brief space of time. Down this stream, in a northerly direction we continued our way without cessation, in the hope of reaching the post-road before night; but darkness settled upon us while yet many versts intervened between us and our destination. About this time Telefont came up, having caught the runaway deer, and, there being no deer-food in the vicinity, we continued our course.

Some time after dark one of our deer gave out, and had to be abandoned to the wolves. After four long, cold, dark hours more of travel, guided by the starlight, floundering through deep, soft snow, and slipping upon the smooth ice of the river, a shout from our guide announced the post-road; but our delight was immediately succeeded by disappointment. The snow lying within the scope of the long, narrow furrow cut through the larch forest was as soft and undisturbed as elsewhere. No sleds or any kind of travel had passed over it at least since the first fall of snow, which led us to infer that the town of Ajan, which was built by the Russian-American Fur Company, had been abandoned, and, in consequence, also the post-road, which led from that place to Yakoutsk, in the interior. The probability of such a state of affairs was far from cheering. Our supplies were exhausted, our guides would go no farther with their deer, and, the route being abandoned, we would have no means of communicating with Yakoutski or of procuring other animals.

Diana informed us that there had formerly been a station somewhere in the vicinity, for which we all started in search. In an hour's time we came upon the yurt, nearly buried in snow. The barking of a dog proclaimed the presence of human beings, at any rate. This barking also aroused the inmates, who came rushing out, thinking, as they said, that we were the postilions from Ajan with the mail, which they were expecting that night. Now the well-beaten road came in view. We had happened to strike the old road near a point where the postilions leave it and make a detour to pass this station.

Men, women, and children in a state of semi-nudeness escorted us into the hut, where a large bright blaze had just been started in the chual. Of this Ivan immediately availed himself to make tea, to drive the chill and weariness from our bodies. Upon the wooden shelves or bunks built on three sides of the room lay, strewn and piled into every conceivable shape, a conglomerate mass of human flesh and bones. Like two dog-teams after a fight, it was difficult to tell "whose foot belonged to who," or who might be the rightful owner of this arm or leg.

Our speculations as to the abandonment of Ajan, after questioning the station-keeper, proved nearer true than we would have wished—it was abandoned; but we were too much exhausted to ponder long over the unwelcome intelligence, and, after drinking tea, retired to our allotted bunks.

CHAPTER XVII.

r good Fortune.—Privilege of an Explorer.—Undignified Pranks.—Ex-
 hausted Deer.—The Post-road.—Mail.—Reindeer and Sleds.—Summer
 journeying.—The Sea.—Ajan Bay.—First View of Ajan.—The Town.—
 beautiful Locality.—Vandalism.—Mr. Popoff, Police-master.—Siberian
 ctar.—Native Reports verified.—Hospitality.—Promptness and Gener-
 ty.—More Discouragements.—Ajan of the Past.—Palmy Days of the
 hotsk.—Scarcity of Provisions.—Medicinal Wants.—Settling with
 ides.—Seeking Quarters.—Faded Grandeur.—Ajan Amusements.—
 to laiovna, the Cossack Widow.—An ungallant Plot.—The Vechourka.
 Music.—Personal Experience.—Astounding Endurance.—Badly Worst-
 —My insatiable Partner.—Fine Prospects.—The Peninsula.—Mount
 ak.—A difficult and dangerous Climb.—My Imprudence.—A glorious
 ew.—Disagreeable Altitude.—Frozen Hands.—The Descent.

ONG, cold, and monotonous as our journey had been, we
 had great reason to be thankful for the clear weather
 h which we had been favored during the greater part of
 way. Since leaving Oudskoi we had experienced some
 ite cold weather, but this we found not to be so great an
 tacle as we had anticipated; for, clad as we were in an
 undance of furs, we could at almost any time get into a
 rpiration by wading through the deep snow for a short
 stance, or by strapping on our snow-shoes and assisting in
 eaking a road for the deer. But we carefully avoided ex-
 sising to such a degree as to induce perspiration, except
 en it was absolutely necessary, for invariably, toward
 ght, the moisture in our clothing would freeze, causing no
 all amount of suffering, if not freezing our feet or hands.
 There is one advantage which the traveler in isolated and
 litary regions enjoys which is denied the greater part of
 ankind—the feeling of perfect freedom and the total ab-
 nce of all restraint. Cold formalities are abandoned at the
 ry outset, and a person displays the generous, free impulses
 his nature, unfettered by the cords of custom and etiquette.
 his privilege we all fully appreciated, and many times a party
 bearded men might have been seen tumbling about in the
 ep snow, or making the woods ring with hideous howls and

noises without fear of odious comparisons, or of their undignified demeanor being commented upon. Often at night, at the conclusion of a long day's journey, our solitary little tent pitched far down in the bottom of some cañon among the larch-trees, and icy mountain-spires looming for thousands of feet above our heads, have we stepped out into the clear, still atmosphere, and, from overflowing feelings of unrestraint, whooped and shouted, pausing after each to listen to the echo as it bounded from mountain to mountain, and finally lost itself among the loftiest peaks.

The postilions did not arrive during the night with the expected mail from Ajan, and as we still had hopes of reaching that place before its departure, after a hasty breakfast Mahood, Swartz, and myself saddled our deer and pushed on, following the well-beaten post-road down the north bank of the Ouey River. Our deer had not yet recovered from their long journey; and the night before, upon reaching the yourt, Diana was so completely exhausted that he neglected carrying them to good feeding-grounds, consequently when we attempted to mount we found the poor creatures hardly able to sustain our weights. But the morning was cold and fresh, and the snow so hard and tempting that none of us regretted this on our own accounts, and were only glad of an opportunity of stretching our limbs.

This road, which, as I have already said, is simply a narrow lane cut through the forest, extends from Ajan across the Juggur Mountains to Yakoutsk, distant thirteen hundred versts inland. It was constructed by the Russian-American Company about the time Ajan was founded, in 1848, and was used by the government in transporting arms and munitions of war to the sea-coast during the Crimean War. At intervals of thirty or forty versts along the route are post-stations, where relays of deer are kept in readiness for forwarding the mail, or for the convenience of travelers, though it is a thing almost unknown for any of the latter, except employés of the Russian-American Company, to pass this way. A mail is sent monthly from Ajan, consisting usually of eight or ten letters, intrusted to the care of a postilion, and generally occupies ten days in reaching Yakoutsk, traveling day and night.

Reindeer are used altogether on the route in winter, and



REINDEER-SLED.

re harnessed in pairs to a sled similar to the ordinary dog-sled, such as we had used in our journey from Algasee to Dudskoi. The harness consists of a simple strap or belt round the neck of each animal, to which is attached a single hong of hide, which passes between their legs and around a bow in front of the sled, but is not made fast to it, so that, unless the animals travel equally fast, one draws the sled upon the heels of the other. In summer, horses are used altogether for land transportation, though by taking a longer and circuitous route the traveler can accomplish a large portion of the distance by water transportation on the tributaries of the Lena.

In spite of the anxiety we all felt at reports we had heard at the post-station concerning the abandonment of Ajan, and scarcity of provisions in town, our morning's journey was a most pleasant one. The gratification at having accomplished so much of our arduous undertaking, and anticipations of again meeting civilization, had a tendency to counteract the discouraging effects of these reports.

At 11 A.M. we reached the mouth of the Ouey, seven versts below Ajan, from which place the road takes a northeast course over two low mountain ridges before reaching the coast. As we approached the town, our eyes were once more greeted with a view of the sea for the first time since Christmas Eve, and ere long we found ourselves skirting Ajan Bay,

a small indenture in the coast, sheltered from all but southerly and southeasterly winds. Though by no means a perfectly secure harbor for shipping, yet it equals, if not excels any other on this side of the Okhotsk Sea, for which reason this place was selected by the Russian-American Company as a whaling dépôt.

Not expecting to see any thing more than a rude collection of log cabins, we were agreeably surprised, upon turning a rocky promontory, to find ourselves confronted by a very large log magazine or store-house, faced with a long gallery and row of heavy wooden columns. About the building were lying anchors, chains, ships' tackle, and, in fact, almost every thing requisite for a naval dépôt. Near by, in a rude little earth-work commanding the bay, were mounted about a dozen small iron guns, stuffed to the muzzle with dirt and gravel; and drawn up on the beach were half a dozen good whale-boats. Beyond these lay a small schooner, high and dry on the beach, to escape the huge masses of drift-ice that sweep along the coast with the tides later in the season. The town itself lay sheltered in a beautiful grove of trees, in a valley extending across the neck of a small but mountainous peninsula, and was not visible from the bay. Leaving the water, we followed the road through the grove of trees for about a quarter of a mile, when Ajan disclosed itself. The town contained only about a dozen houses constructed of logs, but they were by far the most superior buildings of the kind we had yet seen, even excelling those in Nikolayefsk. In addition to the commodious, comfortable quarters for the Company's officers were quarters and mess-rooms for the other employés, besides a small chapel, bath-houses, and every thing essential to the comfort of those residing here.

At the time of our visit the town and location were still very beautiful, but before the abandonment of the place by the Russian-American Company it must have been a charming spot. Now every thing was stamped with neglect, and the lazy natives formerly employed by the Company, instead of hauling their wood for fuel from a short distance as they were once required to do, had made sad havoc among the groves; and where Swartz told me they used to have picnics and tea-parties under the trees, now nothing was to be

it ugly stumps jutting from the snow. On all sides quite high mountain peaks and ridges, affording magnificent prospects of the sea and coast for miles above and sheltering the little valley almost completely from winds and storms that rage without.

The inhabitants assembled to see us when we rode into among whom Swartz recognized two or three old acquaintances, one of them Mr. Popoff, the police-master and commandant of the post, and another—Mr. Sleigherstroff, the representative of the Company now left in town, to whose care was intrusted all their property until some disposition could be made of it. The latter gentleman kindly placed at our disposal his house and board, and in a few moments we found ourselves once more attired in human costume seated in a fine, large, well-carpeted, papered, and furnished room, about which were suspended numbers of pictures and large mirrors, and enjoying the genial hospitality of our host. The tea—that “nectar” of the Siberian traveler is unsurpassable, but words fail me when I attempt to describe the pleasure we derived from some genuine Havanas succeeded lunch.

We learned, much to our regret, that the accounts we had heard from the natives at the post-station concerning the scarcity of provisions in Ajan had not been exaggerated; but Mr. Popoff, who took the greatest interest in our undertaking, kindly assured us that we should have a fresh outfit, if he had to supply us from his own limited stock of provisions, and then replace it from Yakoutsk.

I do not say too much in praise of the genuine hospitality and hearty co-operation we received at the hands of all those with whom we were thrown in contact during our journey among the Russians. Russian hospitality is already proverbial, and, after our experiences among them, I fully believe in all the previous statements of travelers.

Our arrival was very opportune, as we found the postmaster preparing to start off the postilion with the mail; but, learning that we were desirous of sending letters by it, he had delayed it until the following morning, to give us an opportunity of writing. Upon applying to Mr. Popoff, we learned at the outset that there were no deer to be obtained

near Ajan for our journey to Okhotsk, and, to cause us as little delay as possible, he also availed himself of the mail to send instructions to the Tungusian starasta, or head man, who resided near Nelkan, two hundred versts inland, directing him to procure the requisite number—about fifteen animals—and send them down as soon as possible.

From Ajan we could easily have taken post-deer and have gone to Yakoutsck, and from that place by the post-route again to Okhotsk, making two sides of the triangle—twenty-seven hundred versts; but, as our aim was, if possible, to discover a more direct route through the wilderness lying between Yakoutsck and the sea, we did not think for a moment of availing ourselves of this route.

Even Mr. Popoff tried to discourage us from attempting to find a way through this wilderness, which, he said, was only partially known to the hardest and most daring Tungusian hunters, and told us that on one occasion he himself had attempted to penetrate it, but on the second day had been forced to turn back on account of storms and high, impassable mountains. While at Nikolayefsk, on the Amoor, we met a Russian gentleman, Dr. Siskavitch, who told us that he also had attempted this same route some years ago, and that, after proceeding one hundred and fifty versts, he had been compelled to retrace his steps.

These statements would have dampened our ardor very much had not our recent successful journey aroused our conceit, and we had reason to suppose that it could be no worse than what we had already undergone. Our only anxiety now was to procure deer and complete the task as soon as possible.

Ajan is now only the shadow of its former greatness. Formerly one of the governors of the Russian-American Company had his residence here, surrounded with his suite of gayly-uniformed officers, with their wives and families, and the town was full of busy, industrious men. But this was while the Russian-American Company was at the height of its prosperity. Yearly ships arrived from Sitka and other fur-trading posts in the Russo-American Possessions, laden with valuable furs, and several hundreds of thousands of roubles were expended in trying to establish a whaling dépôt. Ships and

every thing requisite for the business were purchased, and natives and horses were brought from the interior, but the experiment was undertaken too late. The hundreds of American whalers that had annually swarmed the Okhotsk Sea for years previously had driven the finny monsters almost entirely from these waters, and the experiment resulted in total failure. I was told by a whaling captain that he had counted seventy-two vessels from the deck of his ship, all in sight one time, more than half of which were "trying out" oil. This will give some idea of the vast number of these animals that were slaughtered, and the rich harvests that were reaped in the palmy days of the Okhotsk. In those days crowds of American seamen visited Ajan. But as a calm succeeds the storm, so also this busy little place has settled back into a collection of deserted habitations.

Much to our astonishment as well as amusement, our host informed us in very good English that "Ajan was 'played out,'" which not very elegantly, but correctly portrays the present condition of the place. When the town was first abandoned, nearly all the provisions were carried away too, leaving an insufficient supply for those left behind, and at this early date, January 18th, we found many of the poorer people almost destitute.

Great fears were expressed lest the scurvy should make its appearance, since it would undoubtedly prove very disastrous, as the place was utterly without a physician, and no medical attendance could be procured this side of Yakoutska, thirteen hundred verstas distant. Already there were two very bad cases of sickness among the people, and the day before our arrival a sick woman had been put on an open sled, to be carried through to the above place to receive medical aid.

Toward night, Ivan, our Cossack, arrived with the deer and baggage, when we paid off and discharged our guides. It required a good deal of persuasion to induce Ivan to remain and accompany us to Okhotsk, since he had left a young wife behind him at Oudskoi, and was desirous of returning home. We had found him to be such a valuable man to us, as interpreter and otherwise, that we could not well afford to part with him.

The following day, not wishing to impose upon the hospitality of our host, we sought quarters elsewhere, and at first pitched upon the former residence of the governor, a large, well-built log house, containing about ten rooms, all well carpeted, papered, and furnished, besides containing a piano and billiard-table. These latter were, however, somewhat dilapidated. Our Siberian experiences had so simplified our wants and whittled down our necessities that we absolutely felt ill at ease with so much room and such a display of faded grandeur strewn around, consequently we were not contented until we found ourselves established on the second floor of an unoccupied house, with barely room enough for our beds, a few chairs, and a couple of small tables. Our friend still insisted on our using his board, but this we could not consent to do without compensating him, on account of the dearth and scarcity of provisions.

During our sojourn in Ajan, no pains were spared by our new friends to make it pleasant for us. Evenings were devoted to card-parties and dances, afternoons to dinners, and the day was filled up with excursions and promenades to different parts of the peninsula and neighboring country.

Our dances would hardly have been termed such in America, though they afforded us not only considerable amusement, but exercise. On these occasions the fair sex was represented by only two ladies—our fair hostess and a robust Cossack widow, who insisted upon our calling her Nikolaiovna, as it would have been equivalent to quite a speech each time her name was called had we been compelled to prefix *Madam*, or the Russian synonyme. She assured us that she was forty-six years old, and weighed one hundred and eighty pounds, both of which facts, contrary to feminine natures generally, she took pleasure and pride in announcing. But neither of these conditions seemed to cause her any inconvenience, for she had the most remarkable endurance of any creature, male or female, that I ever knew. Dancing was her chief delight, and no amount of it appeared to satisfy her. She entered into it soul and body, and displayed such youthful vigor and agility that our curiosity was completely aroused, and we resolved, however ungallant it may have been, to test her endurance. This we could easily arrange, as there were four gentlemen

and only the two ladies; and, while the latter were compelled to dance steadily, the former could relieve each other. The music was not of the best, but varied between a violin (upon which Ivan, our Cossack, was something of an expert) and an old hand-organ. The latter was so out of repair, and had seen such rough usage, that frequently, for several seconds at a time, it refused to give forth any sounds whatever except the creaking of the crank, with which we found it quite difficult to keep step.

Early in the evening the dance commenced, our host and Mahood leading off with a quadrille, while two Cossacks took turns at the crank. This was succeeded by another, to give Swartz and myself an opportunity, and so on *vice versa*, until four quadrilles and two polkas had been gone through. At this juncture Ivan came to the rescue of the other Cossacks with his violin, and started a monotonous Cossack quickstep. This appeared to be Nikolaiovna's favorite, for with one bound she sprang to the floor and threw her handkerchief upon Mr. Sleigerstroff as a challenge to dance. It is considered a mark of impoliteness to refuse, so Mr. Sleigerstroff arose, and for five minutes we enjoyed a fine display of grace and agility. Both parties danced well in spite of the size of the madam, and the music was of a wild, stirring kind, that nothing but a gouty foot could resist. The handkerchief was freely used throughout the dance, not only in posturing, but in wiping away perspiration. No sooner had our host excused himself than the madam challenged Swartz, who was in his turn obliged to dance, and afterward Mahood: they together engaged her for five or six minutes. My turn was inevitable, and, though I had not the slightest knowledge of the dance, I was obliged to comply. For some time—I don't know how long—I made desperate efforts to catch a step, but, failing in this, my only resource was in hopping on one foot. At this the madam protested, and declared that she would call on me again. We had no sooner stopped than a quadrille was suggested, which was followed by another, and a polka. After this I was called upon to renew the dance, and, to avoid a third challenge, I conscientiously did my best, but my awkwardness proved my enemy, and, after full ten minutes of violent effort, I excused myself without having

accomplished my purpose. The incorrigible Nikolaiovna was still dissatisfied. The other gentlemen fully appreciated my condition, and, in order to exhaust her before she could again challenge me, she was kept in a constant whirl of polkas and other dances for fully fifteen minutes, after which she seated herself, flushed, perspiring, and evidently exhausted. I had long since repented our rash experiment to test her endurance, and hailed these signs with joy. Knowing that she would soon recover, my only safety was in offering to finish the dance while she was in too exhausted a condition to accept. I seized upon the opportunity, and offered to dance, when, much to my surprise, she accepted, and sprang to the floor.

It was now 8 o'clock, and Ivan showed signs of weariness, but we all felt confident that she would soon express herself satisfied. By this time the doors and windows of the room were filled with the heads of Cossacks, Yakouts, and Tungusians, anxiously watching the proceedings. I felt that my own, and the reputation of America, whom I represented, was at stake in the contest, and resolved to dance as long as my partner would, though I felt confident of easy victory. A very long ten minutes passed, during which I kept my eye on the face of the madam, to catch the first flush of exhaustion. Her endurance was astounding, and her steps higher and quicker than ever. At the end of twenty minutes the heat was almost unendurable, and my clothing was saturated with perspiration. My partner, though apparently as warm as myself, still showed no signs of yielding. At the end of thirty minutes the contest began to get interesting to the audience at the doors and windows, as they began to join in with a song to assist the musician, at the same time patting their feet or clapping their hands. These sounds seemed to inspire Nikolaiovna; she sprang higher than ever, and I am sure I should have yielded had I not been encouraged from time to time by my companions. The idea of having to succumb to a widow lady of forty-six, weighing one hundred and eighty pounds, I did not relish. I thought I detected a sign of failing in her face, and danced with renewed hope. Forty minutes rolled around, at which time I was unconscious of every thing except a bouncing motion, and my eyes blinded with

piration. After some time—I don't know how long—I
vered my senses, and found my feet and legs jumping
ut to the time of the music, wholly independently of the
of the body, and Nikolaiovna apparently fresher than at
commencement. This discouraged me. Suddenly it oc-
red to me that I had pursued a very ungallant course to-
d this lady, and she so many years my senior too. Even
igh I knew myself to possess much greater endurance,
teness would demand that I should concede it to her, and
nce declare myself beaten, in order to relieve her of any
her exertions. I almost yielded, but cast one more glance
er countenance before fully deciding. I actually believe
she was as fresh as at the commencement. But the
ipse I had of her venerable countenance caused me to ex-
ence a pang of conscious remorse, and gallantry was the
or.

He had barely stopped when she challenged Mahood to
inne the dance, but he very wisely declined. This epi-
gave me the most implicit confidence in all the doctrines
he elder Weller, and I fully resolved never again to try
outdance a Cossack widow, though she should be as old
lethuselah, and weigh ten tons. It was five minutes of
'clock when we stopped. Poor Ivan was nearly exhaust-
and could no longer furnish any music; but the madam
ced two quadrilles and a polka afterward by the music
he organ.

he views to be obtained from many points near the town
e many of them perfectly charming, and one spot in par-
lar we visited almost daily on account of the fine pros-
e. It was at the upper end of Ajan valley, where it ter-
ated, on the northern side of the peninsula, in an abrupt
ipice about four hundred feet in height. The view was
dedly wintry, lacking the warm, delicate tints of a sum-
landscape, but the wide stretch of sea, piled up with
ged masses of broken ice grinding and crashing together,
the long extent of abrupt coast terminating in high
y cliffs, backed by the lofty, snow-clad Juggur Moun-
s, presented a view that made up in grandeur for the
e quiet beauty of a summer landscape.

he peninsula is only about a mile in width and three miles

in length, but is so rugged and mountainous that it was difficult to find level space enough upon which to build the town. Some of these peaks are quite lofty, and one in particular—Mount Miak, or “Beacon Mountain,” at the extreme point of the peninsula, attains an elevation of about three thousand feet, and serves as a prominent landmark to vessels cruising about the sea. On account of this it received its name—Beacon Mountain. This peak had never been ascended in the winter, but the grand prospect which I knew it must afford inspired me with a longing to reach its summit, and I could not feel contented until I had made the attempt. At length a day arrived suitable for the excursion, so warm and pleasant in the valley that neither mittens nor overcoats were required. Attired in my usual dress, with fur boots and cap, I strapped on my snow-shoes, and, taking my staff, started out. The exercise made me so warm that I did not regret having left my mittens behind. Half an hour’s walk brought me to the foot of the peak, up which I attempted to climb with my snow-shoes, but the ascent was so steep, and the snow packed so hard by the winds, that I found them to be of but little use, and was obliged to abandon them after proceeding a few hundred feet. From this point the labor commenced. My smooth-bottomed torbassa refused to take hold of the hard-crusted snow, and it was only by digging notches with the staff that I made any progress at all. Occasionally large fragments of rock jutted from the snow, and, by working my way slowly from one to another, after an hour’s climb I found myself well up the mountain side. Here I was confronted by an almost perpendicular wall, upon which I could make no impression with my staff, and was obliged to work my way around the mountain side on all fours, clinging to jutting rocks and inequalities in the snow with my bare hands, which now began to ache with cold. I would have turned back at this point, but a short distance above were large masses of rock over which I expected the climbing would be better, so continued my course. There was a strongly perceptible change in the temperature at this elevation, and my fingers began to whiten and get numb. I now repented the folly of having started without mittens. The mountain side here became very steep and glassy, and it required all my efforts to

osing my hold. If once started, there was nothing to check my speed for four hundred feet, and then I inevitably have gone over a precipice the height of I could not tell, but just below it black, ugly masses reared their heads. Here it was equally as dangerous to turn back as to go ahead. By using my pocket-knife notches in smooth places, and pausing every few moments to warm my fingers with my breath, I at length attained the rocks above, which proved to be the ridge of a spur extending from the peak. But my hands were idly frozen, and a keen, cold wind penetrated my clothing which had been moistened with perspiration at the commencement of the climb.

My ascent was no longer dangerous, though in many places steep, and in a few minutes' time I found myself on the top of the pinnacle of rocks. The wind was so strong and cutting that I was compelled to take shelter behind the rocks, and in spite of the torments I experienced from my hands, which were beginning to thaw, I felt fully repaid by the success.

The Okhotsk Sea lay spread out below and on three sides like an immense chart, bounded on one side by the water horizon and on the other by the bold, rugged coast, every indentation of which was distinctly visible for fifty miles above the low. A broad belt of fast ice clung to the rocks, extending in places five and six miles out into the sea, outside of which the water was strewn with immense fields of ice, being blown back and forth with the tides and currents, and occasionally breaking, with a distant rumbling sound, and separating into fragments. Between these long black veins of water disclosed themselves. Eighty miles to the south of Shantarr and Feklistoff islands were plainly visible, and to the west the high, pointed range of the Juggur Mountain clearly cut against the dark sky, were in themselves a reward well worth the climb.

I remained on the summit but a few minutes on account of the cold. In descending I selected a different and less dangerous route, though I had to use my hands almost constantly to prevent myself from slipping, and they were again frozen by the time I reached the place where I had

left my snow-shoes. The application of snow, together with the milder temperature in the valley, soon restored them, but the next day they were badly blistered where they had come in contact with the cold stones, and for several days they afforded me much inconvenience.

CHAPTER XVIII.

xiety to start.—Abandoned Project.—Arrival of Tungusians.—Procure Deer.—Excursion with Reindeer and Sleds.—The Cavern.—Our Indebtedness to the Residents.—Departure.—Night Journey.—The Slides.—Sharpsightedness.—Capsize.—My flying Driver.—A glorious Ride.—Reindeer Speed.—Reach the Station.—Romann Caramsin.—Settled Tungusians.—Character, Religion, etc.—Government.—Aristocracy.—Careful Reception.—Bottomless Stomachs.—New Guides.—Medusa.—Change Route.—Aldemir River.—Tungusian Piety.—Road-breaking Deer.—Dog Trail.—Micache.—Ilpangee.—Light Snow.—The Toucha.—Oulinkan.—Conflagrations.—The Cachee River.—Tungusian Offerings.—Mahood's Contribution.—Sunday.—Hard Traveling.—Ascent of the Juggur.—The Divide.—Dissimilarity in Country.—Multan.—Level Country.—Mount Bulkley.—Ulkan.—On the Trot.—Improvement in Deer.—Viciousness.—Medusa's Discomfiture.

MORE than a week had elapsed since our arrival at Ajan, and still no news from Nelkan or the Tungusians. We felt satisfied that Major Abasa and party, who were to meet us at Okhotsk, must have long since arrived at that place, and, finding us there, they were undoubtedly uneasy about us; consequently each day's delay increased our anxiety to start.

After a few more days, hearing nothing from the deer, I was desirous of procuring dogs, and attempting to reach Okhotsk by traveling along the ice-belt I had seen from Bulk Mountain. This journey would probably not take more than seven or eight days, but neither dogs nor dog-trail could be procured, and I was obliged to abandon the project. It was probably just as well, as the salt ice along these shores is very treacherous and rotten, and, in nine cases out of ten, before reaching my destination I would have drifted out to sea on some detached field of ice, and have undergone similar, if not worse experiences than Swartz and his five companions underwent near the mouth of the Uda River, as related on pages 181-183.

At length, on the 28th of January, a party of Tungusians arrived, with whom we made arrangements, after a good

deal of parleying, for them to carry us half way to Okhotsk, at which point they assured us we would find a rich old Tungusian who had an abundance of deer, and would carry us the remainder of the distance. But their deer were far inland, and we had to reconcile ourselves to many days' longer delay.

In the mean while we availed ourselves of all the kinds of amusement the town and country afforded. While here we experienced our first ride on a sled drawn by reindeer across Ajan Bay to a point of rocks, beneath which is a cavern about two hundred feet in depth. But our long and intimate acquaintance with these animals destroyed the charm and novelty of the ride. The cavern appeared to be a large fissure in the rocks, occasioned by volcanic action, and had since been subjected to the action of the waves, which had in places worn quite deep chambers, but it possessed neither beauty nor grandeur.

Finally, after a delay of nineteen days, on the 5th of February, Romann Caramsin, the Tungusian starasta, arrived with the welcome announcement that our deer would be at the post-station, twenty-five versts distant, the next day, to which point he kindly volunteered to carry us on his own sleds.

All our preparations for the journey had long since been completed. Sukarie, or dried bread, for road use, had been prepared for us by our generous friend, Mr. Popoff. This, with tea, sugar, and ten days' rations of deer-meat, supplied our wants, as we expected to be able to renew our supply of meat on the road. Fresh, new furs supplanted our old ones, and, having procured a couple of pairs of new snow-shoes, we felt ourselves fully equipped.

Our stay in Ajan had been made very agreeable by Messrs. Popoff, Sleigerstroff, and our other new acquaintances, and, had it not been for the valuable assistance we received from the former gentleman, I fear we would have been unable to prosecute our farther explorations. As for our pretty hostess and Nikolaiovna, I will never forget either of them; the former on account of the many kind and delicate attentions we received at her hand, and the latter on account of one of the most complete and thorough defeats one mortal ever received at the hands of another.

We had to dine with each of our friends the following day, a trivial thing, as three dinners had to be disposed of in short space of three hours—and the ceremony of leaving was so long that the sun was below the horizon before we bade our last adieu, and dashed out of reach of the sound of the parting cheers.

The gorgeous hues of the setting sun rapidly faded from the western heavens, the last faint gleam of which, reflected on the icy forehead of Mount Miak, shone in brilliant contrast against the sombre shades of advancing night. One by one the stars peeped forth, shyly concealing their brilliancy at first, as if uncertain of their powers; but, imbued with courage from their rapidly increasing numbers, ere long the whole heavens fairly glistened with myriads of sparkling stars.

It was one of those clear, cold nights, and so still that all were appeared spell-bound. No sound but the hoofs of our reindeer on the hard, crisp snow broke the silence for more than half an hour after we started. The light of the stars reflected on the snow was sufficient to enable us to see distinctly our way along the post-route, except in places where the thick branches of overhanging larch-trees completely shut out the stars, and then it required all the skill and sharp-sightedness of our drivers to prevent collisions with neighboring reindeer-trunks. In places the road led around the sloping sides of small elevations, and was so smooth and slippery that only the greatest exertions of our drivers could they prevent the sleds from swaying around and capsizing.

Having passed several of these places successfully, I began to repose the greatest confidence in the skill of my driver, and I settled myself back on my narta for a quiet enjoyment of the ride. Our deer were in good condition, and, being incensed by the cold air, could hardly be restrained from springing off on a full bound. While lying back at my ease, suddenly perceived, by the swaying of the sled, that we were passing another of the slides, and had barely time to grasp the sides of my narta, when I experienced a suffocating sensation in my chest, and for an instant the stars were hidden from view by the passage of some dark object through the air like an extinct meteor. I was not long in discover-

ing that the sled had capsized, and that the whole weight of it was resting on my chest; but I could not account for the dark object until I saw my Tungusian driver trying to extricate himself from a large snow-drift about fifteen feet below the road, into which he had landed head first.

The deer had been traveling at a very rapid pace, and, coming to this place, the driver jumped from the sled, and, seizing the bow in front, leaned his whole weight up the incline to check the swaying. But it had gained too much force, and, the lower runner striking some impediment, the whole establishment suddenly whipped over, carrying the Tungusian with it before he could extricate himself. Our deer fortunately stopped immediately.

As soon as we found no injury had been sustained, my driver and I enjoyed a hearty laugh over the affair, and as this was the only means of communicating with each other, we continued it all the rest of the way.

Up to this time, on account of the unevenness and winding course of the post-road, we had been unable to test the speed and full enjoyment of a ride behind reindeer; but, after once more reaching the mouth of the Ouey River, before us for several miles was a long, straight, and perfectly even stretch. Here, as if to compensate me for the capsize he had given me, my driver uttered a shout, and, thrusting the deer in the haunches, off they started on the full bound, the light sled seeming to be no impediment to them whatever.

It was the most enjoyable ride I had ever experienced, even excelling that on the smooth ice of the Uda River with dogs when in full pursuit of the fox. Imagine yourself buried in a profusion of furs, reclining on a good sled, with a pair of noble bucks for horses, and on such a night too. The road was so hard and level, and the sled-runners so smooth, that, though we traveled like the wind, not the slightest motion was perceptible. Nothing but the rapid clattering of the deers' hoofs and the confused mass of dark tree-trunks and foliage sweeping by apprized us of our headlong pace.

At length we approached the station, the same in which we had slept on first reaching the post-road. Notwithstanding the pleasure we had experienced from the ride, I hailed with joy the glare of torches with which the occupants of the

yourt had assembled outside on hearing the clattering of hoofs; for by this time my susceptible nose had succumbed to the tamperings of Jack Frost, and the one position which I had been obliged to keep on my sled had made the last half hour's ride very tiresome.

Romann Caramsin, the Tungusian starasta to whom we were indebted for our ride, was the owner of this and several other stations along the post, also of many of the deer used on the route. He hired different families to occupy the huts and take charge of the post-animals, paying them a mere trifle, which, in fact, was all their services were worth, since their duties were almost nothing.

The settled Tungusians whom we had thus far encountered were far inferior to the wanderers, possessing neither the robust constitutions, spirited and independent dispositions, nor cleanly habits of the latter. Not that I would wish to convey the idea that any of them were very cleanly, but the wanderers were so far superior to the others in that respect as to be entitled to have it classed as one of their virtues. They were all extremely hospitable, simple-minded, and peaceable; none of them very courageous, but all very superstitious. Nearly all of them had been baptized into the Greek Church, and were very rigid in the observance of the forms of their new religion; but beyond the mere forms they seemed to have little idea of it. Their old beliefs still had a strong hold upon them, and, though professed Christians, I have frequently seen them make small offerings to the spirits whom they believe inhabit all large mountains and rivers. These offerings often consist of nothing more than a few grains of tobacco; but it is not the quantity of an offering that propitiates the spirits in their belief; they think the mere observance of the form is sufficient. Many of them still have great confidence in the power of their shamans, who correspond to the medicine-men of our American Indians, and in cases of sickness will oftener resort to them than to the Russian doctors. They have adopted the Russian form of civil government, their head man being called the "golivar." Their territory is divided up into districts, over each of which a starasta presides, and under these is still another grade, called "starshana." The officers are elected by the majority of the tribe,

and usually hold office during good behavior, or until the people tire of them.

They were formerly ruled by princes called Caramsin, from whom nearly all the natives in this vicinity claim descent, the name being more common than any other. They are quite aristocratic in their notions, and sustain the family dignity in good style. It was quite amusing and unexpected to hear them speak in the most contemptuous manner of this one and that one who pretended to be Caramsins, and had assumed that name without just title to it.

Owing to the presence of Romann, we found the yourt a much more inviting condition than on our former visit. Then, every thing was dirty and neglected; but it might have been different had we not taken them so by surprise. On this occasion, all about the place was clean and carefully laid away, the dirt floor nicely swept, and the bunks upon which we were to sleep thickly strewn with fresh green boughs. A large wood fire was cheerfully crackling in the chual, and several large copper tea-kettles were already singing over the blaze. Music certainly has charms, and wields a magic influence over both man and beast; but the finest compositions of Mozart, Beethoven, or any of the great composers, are tame when compared with this same feeble, monotonous simmering of the tea-kettle, as listened to by the chilled and wearied traveler.

According to our usual custom, tea was taken while supper was being prepared, in which Romann joined us. Knowing the fondness of these natives for that beverage, we prepared a large quantity, and seated ourselves around a rude table, occupying the positions of host and guest at the same time, a very common thing while sojourning in these yourts.

It was our intention to drink to the utmost of our capacities, to keep Romann company, but my short experience enabled me to dispose of only seven moderately-sized teacupsful. Mahood exceeded me by one, and had to withdraw. We encouraged Romann to go on, excusing ourselves for withdrawing on account of inexperience; and he did go on, not inverting his cup—which is a sign of sufficiency—until he had filled and emptied it seventeen times. Even then he appeared reluctant to do so.

Our deer and guides had already arrived. The latter were quite intelligent-looking young scions of the Caramsinily. As our journey was to be a very difficult one, and large amount of snow-shoeing would be required to break trails in the deep snow, they had hired a third Tungusian to accompany them with two deer especially for this purpose. This latter individual was a curiosity, very taciturn and obedient to his employers, who now and then vented the superiority of their aristocracy upon his humble uncombed head. I doubt whether his hair had been combed for many a moon.

He wore it quite long, a perfect mass of labyrinthian knottings, terminating in long, uneven locks, that stood out in all directions like serpents. For this reason, from the outset we looked upon him as Medusa, notwithstanding dissimilarity in sex.

It was our intention to have left the post-route a few versts back, nearer Ajan, and to have taken an easier route toward the mouth of the Aldemir River, which lay in our course; but a Tungusian, who had been sent over a portion of the route, upon returning reported the entire absence of deer in that vicinity, and we were compelled to pursue a much more difficult route.

On the morning of our departure, February 7th, a strong northerly wind was blowing. This, however, did not deter us from making a start, though it was 10.30 before we left the station, owing to some of our deer getting loose and wandering back to the feeding-grounds, about two miles distant. Taking a northerly course, and facing the disagreeable wind, for about four versts we made a gradual ascent, when we found ourselves confronted by a steep, bare ridge, over which the route led. The ascent was very difficult, on account of the smooth bottoms of our torbassa and the strong gusts of wind that opposed our progress; but, once on the summit, traveling was much better, the snow being entirely swept from the ridge. From this we descended to quite a large tributary of the Aldemir River, called Ephshe by our guides, and crossed it at a point about ten versts below one of the post-stations erected upon its bank.

Following the course of the Ephshe a few versts, we then turned it, taking a northeasterly course up another small tributary, the head of which we reached at 4 P.M.; and, finding

good deer-feed, camped for the night, simply building a large fire and spreading a few boughs on the snow to sleep upon. The snow had been deep and soft the greater part of the way, and the weather quite mild, the thermometer ranging at -4° Fahrenheit throughout the day.

Our natives seemed to regard the journey we had undertaken as no trivial affair, judging from the ceremony each went through before starting in the morning. Advancing to the images in the corner of the youirt, they all prostrated themselves before them, and, after bowing and muttering prayers for several minutes, invoking the protection of the saints during the long and perilous journey they were about to undertake, each took from the corner small crucifixes they had previously suspended there, and fastened them about their necks. At night they hung them to the boughs of a large spruce-tree near our camp-fire, and repeated the ceremony.

Contrary to our expectations, the first night in camp after our long rest was fully enjoyed by all, and we awoke thoroughly refreshed.

Leaving camp at 8.30 A.M., all on snow-shoes, we continued a northeast course down the Micache River, near the source of which we had camped the night before, and, though the snow was deep and soft, with the assistance of Medusa and his deer we made very good progress.

The road-breaking process was not as difficult for Medusa as it had been for Diana on our last journey. One of his deer had been trained to the work, and, where the country was open, it was only necessary to attach a long seal-thong to the animal by which to guide it, when the animal, fully comprehending its duty, would plunge forward into the deep snow, and flounder a path through for the loaded animals that followed. The guiding could be done without dismounting from the saddle, but we all felt great sympathy for the poor animal on account of its noble exertions, and, where our snow-shoes could be of any assistance, relieved him by going ahead ourselves.

At 11 A.M. we struck the old trail of a dog-sled, probably going to the mouth of the Aldemir for seal-meat, which is the only food to be obtained for these animals this winter. This

we followed down the Micache River to the Aldemir (the latter, at the junction, is two hundred feet wide), and we along the Aldemir in a northerly direction until 4 P.M., when we left the river on the west bank, and ascended a steep, irregular hill, upon which we expected to find deer-moss; but the whole country had been swept over by a conflagration, and the deer-moss destroyed.

We could not camp without feed for the deer, so were obliged to push forward until seven o'clock. During the day we had to grope our way through the darkness, frequently stumbling over charred logs and stumps, and could find no food until we had crossed to the west bank of the Toucha River. This stream, the guides told us, is a tributary of another, called Toucha by them, which, in its turn, flows into the Aldemir. At night it was windy, but not severe, the thermometer indicating $+9^{\circ}$ Fahrenheit.

February 9th was still warm, and threatening clouds overcast us to expect a snow-storm, but at night it was again clear. We did not leave camp until 10 A.M., as Vassilly, one of the guides, told us we could not go more than twenty-five miles that day, on account of the absence of deer-food for a distance beyond the place at which he expected to camp. Crossing a low ridge, we struck the Toucha above the mouth of the Ilpangee. This stream is here about two hundred feet wide, and flows for a long distance in a straight course S.S.E. The snow was less than a foot in depth at this place, probably owing to the formation of neighboring ridges which shelter the valley. This is known to be the case in many places in the country. We kept up the Toucha until 3.30 P.M., and then descended at the mouth of a tributary called Oulinkan, flowing in a direction N. 20° E.; thence up the Oulinkan four or five versts to the anticipated feeding-ground; but, since Vassilly's visit a number of years ago, a fire had swept this region also, and it was only after considerable search that we found a spot suitable for camping.

Probably the whole of these valleys have at some time been swept by conflagrations, the causes of which are unknown to natives; and where a fire has been, for a long time afterwards but little deer-food is to be found.

It was told in Ajan that gold had been discovered on the

Toucha River, but not in sufficient quantities to pay in mining. These streams are all easily accessible in summer by sea, and most of them are navigable for whale-boats or canoes.

The next morning, February 10th, we started at 8 A.M., continuing up the Oulinkan to its source, and then crossing a high mountain range to the head of a branch of the Cachee River. The Cachee flows north for some distance, and then empties into the Oldan, which last stream flows eastwardly, and empties into the Okhotsk Sea.

The ascent of the hill was so gradual and the snow so hard that we experienced but little difficulty in reaching the summit, after which we strapped on our snow-shoes, and, leaving our deer with Ivan and the guides, pushed on down the steep hill, sometimes sliding for long distances without stopping or making any exertions except to preserve our equilibrium. Half a mile below the summit we again encountered timber, and at 4 P.M. found the remains of an old hut. Near this, stretched between two trees, was a string, to which was fastened seven small pieces of cloth and buckskin, some of which, judging from their appearance, had been hanging there a very long time. The meaning of these we could not comprehend until our guides arrived and told us they were offerings made by hunters to the spirit of the mountain we had just crossed. Usually, the guides told us, this mountain is very difficult to pass, and hunters, either if about to cross it or having just effected a passage, make offerings to appease the spirit, or as a token of their gratitude for a safe passage. By the time the guides arrived we had already loosened it from the trees to show them and ascertain its meaning, but this act they considered a great sacrilege, and manifested considerable uneasiness until it was replaced. Then, to fully reassure them, Mahood fastened a fragment from an old pair of red unmentionables in his possession to the string, where it will probably wave for many years to come. In the morning the temperature was hardly below zero, but by night it had fallen to -18° Fahrenheit.

February 11th.—Some people say that above the fiftieth parallel there is no Sunday, and it certainly seems so with us. The day comes and goes, and if it were not for our note-books

and daily entries we would soon lose all reckoning, there is so little difference between yesterday, to-day, and what will be on the morrow. We continued our course down this stream to the Cachee, and thence along the Cachee in a direction N. 70° E. until 12.30 o'clock, when we ascended a tributary flowing from a northwesterly direction.

The snow was very deep and soft, particularly on this last stream, and traveling was exceedingly hard, so much so that our deer could barely sustain their packs from weariness. We were hardly better off ourselves, owing to constant snow-shoeing during the day. This, with a renewal of the old pains I had experienced from my ankle while ascending the Goram River, made a halt very desirable, and by 4 P.M. we were once more ensconced in our conical tent. The thermometer ranged from -4° to -19° Fahrenheit during the day.

Near this point the Juggur range approaches the coast, and is so high and rugged as to preclude the possibility of advancing farther without crossing it to the head waters of some of the tributaries of the great Lena.

In accomplishing this we anticipated great difficulty, and eagerly watched every change in the temperature and the heavens, fearing lest some indications of a storm might disclose themselves; but the morning of the 12th of February dawned clear, beautiful, and mild, our thermometer indicating only -7° Fahrenheit. We left camp at 8 A.M. in the highest spirits at being favored with so fine a day for the passage, and all hands cheerfully strapped on their snow-shoes to once more tackle the deep soft snow that had so exhausted ourselves and animals on the previous day. The traveling was miserable in the worst sense of the word, over the frozen bed of a narrow, crooked torrent, choked up with large, loose boulders, hidden under the light snow. Over these ourselves and deer were constantly stumbling, not only risking patience, but bones. At length we had to abandon the stream altogether and take to the banks, which were very uneven, presenting a succession of steep ridges and deep gulches which we had to cross. To add to our difficulties, beneath the snow was a perfect labyrinth of gnarled and knotted stumps and branches of the trailing pine, of which I have already spoken. These were, if any thing, more annoying than

the boulders in the stream; but fortunately, after going a few versts, we emerged from the timber, and found ourselves at the foot of the main ridge, where the snow was sufficiently firm to sustain our weights.

Since leaving the Cachee on the day before we had been constantly ascending, and had already attained quite an elevation. By continuing up the gulch in which the stream has its source, the ascent was very gradual, and the hard snow had filled up all the inequalities of the ravine, making a smooth, firm road, except in several places where avalanches had swept down the mountain sides and blocked it up with huge snow boulders. A strong, unpleasant wind blew down the gulch, carrying with it clouds of light snow into our faces, and choking up the fronts of our hoods; but this only served to remind us of what difficulties we should have encountered had the day been less propitious. Once upon the summit of the Juggur range (for the second time), with twenty strides we could step from snow that would eventually find its way in torrents and cascades to the Okhotsk Sea, to other which, by long windings and a sluggish current, after traversing for thousands of miles the great plains of Siberia, would at length find its way through the mouth of the Lena to the perpetual ice of the Arctic. Mountain peaks loomed far above us on all sides, but, upon the whole, the range was less rugged here than below Ajan.

We descended on the westerly side very rapidly, notwithstanding the snow was soft and deep, though the decline was gradual. The face of the country was entirely different from that east of the ridge. Instead of deep, narrow gorges, it displayed wide, shallow basins, over which the larch timber was more evenly distributed than on the other side.

We traveled N. 40° W. for about twelve versts, and then crossed a small lake or frozen swamp. From this lake, taking a course N. 20° E. for about six versts, we arrived at another about two miles wide. Leaving this, we traveled N. 65° E. until 4.30 P.M., and camped on the banks of a stream called Multan, which winds its way through a large, desolate plain, from which nearly all the timber had been burned by some great conflagration. On all sides black, charred stumps reared their heads above the snow, which was not more than a foot

depth. Now, for the first time since leaving Algasee, we could look toward the horizon over land without having our vision obstructed by mountain ranges. To the north and east appeared in the dim twilight a boundless plain.

February 13th.—Last night when we camped it was a little misty on the horizon, and we supposed there were no mountains in the neighborhood, but this morning, just as we were leaving camp, we discovered through the mist, far up in the heavens, several light streaks, which we at once knew to be the salient ridges of some mountain peak lighted up by the sun. It bore N. 20° E. from camp, and was about twenty-five versts distant. As our guides knew no name for it, we called it "Bulkley" Mountain, after the chief engineer of our expedition. For a long time it appeared to be an isolated peak, but as the mists rose we discovered that it was the eastern terminus of a high range running westward, and forming the northern boundary of the large basin we had been traversing since crossing the Juggur Mountains. The Multan drains a large portion of this basin, and, with a very winding course, passes between low hills about four versts east of Bulkley Mountain, after which its general course is northerly, though very serpentine, sometimes flowing directly south. After flowing a long distance, it empties into the Ouey, thence to the Mai, and through the Mai and Aldan into the Lena, according to the statement of our guides. They also stated that another stream, called the "Ulkan," has its source in this same basin, but finds its way eastwardly through the Juggur range, and empties into the Okhotsk Sea.

In the direction we wished to go, sixty versts from camp, the Multan, Vassilly, one of the guides, told us we would find an old Tungusian living, from whom we could procure fresh meat. Wishing to reach his place before night, we made quite an early start, traveling all day on the frozen, snow-crusted stream. The traveling was so good that we were able to trot our deer a portion of the way, which varied the usual monotony of the journey. As we advanced northward in our travels, we found the reindeer becoming much more active and spirited, and sometimes even quite vicious. This was probably owing to their greater numbers, and, consequently, comparatively little usage. The few that exist

near and below Oudskoi had been broken down by continuous traveling.

During the morning we had quite an amusing exhibition of the viciousness of one of them. It was a large white animal upon which Medusa rode. Getting tired of being punched so incessantly by the staff of its rider, who was urging it on at a quick pace, the animal became obstinate, and refused to move at all. Medusa became indignant, and struck the animal across the antlers with his staff, but was the next moment picking himself up from the snow, where he had been thrown. Again he mounted, and was for a second time kicked from his saddle by one of the hind feet of the deer, but still retained hold of the halter. The third time he tried it with the same result, and, finding it useless to attempt to ride, after severely beating the animal he started ahead on foot, leading it. The beast followed meekly about two rods; then, suddenly lowering its head, it rushed forward, butting Medusa a short distance below the small of his back with such force as to half bury him in the snow. The astonishment expressed upon his countenance as he arose was perfectly ludicrous, and, in spite of the poor fellow's aches, we could not restrain our laughter.

At length night overtook us before we could reach the yourt, though we had made upward of sixty versts, following the windings of the stream; yet, had not two of our deer absolutely given out, we would have pushed on through the darkness.

CHAPTER XIX.

arming Considerations.—Health.—Prospects of Sickness.—Ptarmigan again.—Black Cocks.—Feeding-grounds.—Arrival at Yourt.—Sojourn.—Epicurean Repast.—Wealthy Native.—Liquor.—Bear-spears.—Bear-traps, etc.—Under the Weather.—Yalbandya.—Tota.—Deserted Camp.—Fish-traps, etc.—A beautiful Sunset.—Peculiar Passion of the Reindeer, and Manner in which the Natives profit by it.—Menmoioon Mountain.—False Alarm.—Neotl River.—Half-way House.—Deserted.—Tents and Reception.—News of the Major.—Cossack and Dispatches.—Style of Tent.—Caldron.—Native Hospitality.—Killing the fatted Deer.—A Native Repast.—Mode of Eating.—Tungusian Ugliness.—A brace of Beauties.—Costume.—The Charm destroyed.— 36° minus Fahrenheit.—A Night with the Natives.—Miakan.—Elikan.—Deceived.—Tungusian Settlement.—Old Ivan the Starasta.—A Great-grandfather.—Tea.—A well-deserved Rebuke.—Difficult Conversation.—French in Disrepute.—Mode of killing Deer.—Esquimaux Game of Ball.—Shamanism.—Original Creed.—Good and Evil Spirits.—Condition of Uncertainty.—Worthless Priests.—Shaman Incantations.—Shyness.—Rascality.—Miraculous Cure.—The Price.—Arrival of Cossack Sergeant.—News of our old Companions.—Successful Explorations.

We had often thought, since starting out on our winter journeyings through this wild, almost uninhabited region, that a sad calamity it would be should any of our party be taken seriously ill, or meet with any accident. For a man in perfect health and spirits, this kind of traveling is exceedingly difficult and trying; what would it be for one with a broken limb, or helplessly disabled through sickness? No aids, no medical attention, intense cold, and almost impassable mountain ranges to traverse—the bare thought of it makes one shudder.

In our conversations on the subject we had settled upon the only plan to be pursued in case of such an emergency. The supply of provisions to which we had been limited from the outset would not have enabled us to linger much on the way, and our only plan would have been to construct a rude sledge to be borne by two deer, one following the other. At this, in ascending steep, icy mountain ridges, upon which the men and deer were constantly slipping, or while strug-

gling through thick woods floored with an intricate network of trailing pine concealed beneath the snow, or up the rugged bed of some frozen stream strewn with boulders, would most probably have proven to be the patient's bier. We had brought no medicine with us, partly on account of our limited transportation, and partly through an ignorance of its uses, but mainly owing to robust constitutions, and an unwavering confidence in the beneficial effects of plenty of pure cold air and vigorous exercise. We still adhered strictly to the plan of stripping ourselves to the under-clothing for sleeping, and of bathing our heads and hands in snow morning and evening, no matter what the temperature might be. To this custom we were probably indebted for the slight effects of cold upon us; for, though sleeping in our light canvas tent or in the open air without fire, and no more covering than a single blanket lined with rabbit-skins, I don't remember at any time having suffered from cold during the night except on two occasions, when I awoke and found my nose frozen.

In spite of an abundance of pure cold air and vigorous exercise, for two days past I had experienced some inconvenience from a severe cold, and on the morning of the 14th of February awoke with an excruciating headache, which, however, I partly attributed to a dense smoke with which our tent was filled on the previous evening while preparing supper. A good rubbing of my face and hands with snow partly relieved me, and by 8 A.M. we were once more on the road, filling our lungs with refreshing draughts of cold air at a temperature of -20° Fahrenheit.

For the first time since leaving Ajan, shortly after starting we once more encountered animal life in the shape of some of our old friends the ptarmigan, or Arctic grouse; and in crossing one of the bends of the river we scared up several of the large black cocks, such as we had seen in the fall below Tugursk. They arose from the snow, into which they had burrowed deep holes for protection against the cold, and, with a loud whirr, sailed off into the woods before we could get a shot at them.

An hour and a half's traveling brought us to a spot on the east bank of the river where a large number of deer had been feeding. For a long distance on all sides, beneath the trees,

The snow had been dug up in small circular patches by the hoofs of these animals in search of moss, but none of the animals were in sight.

Another half hour brought us to the yurt of the old Tungusian, who proved to be a brother of old Ephraim, the bear-hunter, whom we had seen on the Naughtara River. This yurt was situated about twenty versts in a direct line north of Bulkley Mountain, and two days' journey—about eighty versts—above the junction of the Multan with the Ouey.

The yurt was another old Tungusian, who had the reputation of being very rich; also an old woman and two boys; from all of whom we had a most cordial reception, accompanied with persistent requests that we would not continue our journey until the next day. Our deer were badly used up from the journey of the previous day, and, in order to give them rest, we readily accepted their invitation.

Soon we were luxuriating over a good allowance of the most delicious meat I have tasted for many a day—that of a young deer, and so fat, juicy, and tender that, in any other part of a cold climate, we would hardly have relished it; but here it is *par excellence*, and, accompanied with fine tea and reindeer-tongues, affords a feast which the most fastidious could enjoy.

In answer to our inquiries as to the number of deer the old man owns, he replied that "he did not know; he could not hunt far enough to find out." Since fall he had lost more than a hundred, that had been killed by wolves or had wandered off with wild deer, but had been partially repaid, as he had during the winter shot twenty-five wild deer feeding in the midst of his herd. He says he is poor when compared with some others, who own so many that they make no pretensions to keep track of them. An animal that would have cost thirty roubles at Oudskoi can be purchased here for a small bottle of liquor.

It is curious how all people in all climes succumb to the passion for strong drink. No more powerful weapon can be wielded by his Satanic majesty or his earthly emissaries for the accomplishment of evil. The possession of it will induce any of these people to part with every thing they have, rarely excepting life, though I dare say the villainous com-

pounds that are frequently imposed upon their credulity has cost many of them even their lives.

Bear-hunting seemed to be the specialty not only of Ephraim, but of his brother also, judging from the skins and bear-spears that were lying around. These latter were of Yakout manufacture, and exhibit skill and taste in their construction that would do credit to our own artisans. The blades are about ten inches long, of symmetrical proportions, and are inlaid with beautiful designs of scroll-work and other patterns in brass and copper. The spear, however, is rarely used, except in dispatching an animal that has been trapped, or wounded and disabled.

Two kinds of traps are used by these people. One is a triangular pen, constructed of heavy logs; one side is left open, but the roof, which is supported by triggers somewhat resembling the figure 4, is so arranged that in falling it closes up this side, completely penning up Bruin, and then he is at the mercy of his captors. The other is simply a strong bow fastened to a tree or forked post on the side of a trail fre-



BEAR-TRAP.

vented by these animals; a string, stretched across the path and fastened to the trigger, is so fixed that, the moment the bear's leg presses it, the bowstring is freed, and a long shaft is driven into the animal's side. But there is nothing to prevent the animal from traveling on as long as life remains. Sometimes it goes several miles before falling, and not unfrequently escapes altogether. This snare is also used for mountain-sheep and wild reindeer, though for the latter a simple slip-noose suspended over their trail is sufficient, as their antlers are almost sure to get entangled in it.

The morning of the 15th was quite cold, —26° Fahrenheit. The rest had not benefited my cold any, and, upon starting out, I found great difficulty in riding my deer, owing to a severe headache, accompanied with fever. The slight jars occasioned by the stepping of the animal made the torture almost unendurable. This I tried to avoid by walking where it was possible. The snow was deep, and traveling hard; but, after going a few versts, we struck an old trail leading in the direction we wished to take, which lessened our difficulties very much. We took a northerly course up a small tributary of the Ouey until 2 P.M., when, arriving at its head, we crossed a low ridge to the source of another stream, which Vassilly called Yalbandya.

From the top of the ridge we had an extensive view of the country we had been traversing since leaving Bulkley Mountain, which peak loomed up far to the south. Viewed from this point, it is a very prominent landmark. The whole country was literally alive with ptarmigan. At 4.30 P.M. we camped on the Yalbandya, having made about twenty-five miles during the day. The trail we had been following was one made by the rich old Tungusian in search of some of his deer.

The night was passed very miserably by me, but, not wishing to declare myself an invalid, and having strong hopes of overcoming my tendency to sickness, the following morning we pushed on as usual. The journey was very trying, but toward night I experienced a complete revolution in feelings for the better. We continued our northerly course down the Yalbandya, still following the old man's trail, but, shortly after leaving camp, it terminated, and we were again compelled to break a road for ourselves.

A few versts farther we encountered a wide frozen swamp, across which a cutting westerly wind was sweeping, driving with it clouds of fine crystallized particles of snow. Twice, while crossing it, my nose became frozen, but each time I promptly restored it by the application of snow. At this point the Yalbandya changes its course to due west, and, after flowing for about ten versts through a gap between low hills, empties into a stream called the Tota.

At 1 P.M. we reached the banks of the Tota at a point where a Tungusian tent had been recently pitched. The frame was still standing, and near by, suspended to high poles, were pieces of deer-meat and cooking utensils, which showed that the place was only temporarily abandoned. Two dead crows kept these company, and served as a reminder to their former companions of what fate they might expect if they molested it. The spot appeared to be the permanent abode of some family, as two lines of wicker-fence were extended across the bed of the river, in which were several openings where fish-traps were set, such as we had seen near Solavaoff's, on the Arla River.

Having crossed the Tota, we commenced the ascent of a long low ridge, but made slow progress on account of deep snow until half way up, when we struck a good trail coming from somewhere down the river.

From the river-bed this ridge appeared to be perfectly naked, but as we advanced we found that it was covered with a thick growth of small spruce-trees, which were so completely covered with light snow as to make them undistinguishable at a short distance. We crossed the ridge just as the sun was sinking into an ocean of amber-colored sky in the south-west, and a more enchanting sight I never beheld. The summit of the ridge we had just crossed, with its snow-burdened forest, was all aglow with the sun's parting rays, and reared itself against the bright eastern heavens like a mountain of golden fleece, while the lower part, buried in the cold, ashy hues of approaching darkness, through brilliant contrast, served to make the former doubly resplendent. The thermometer indicated $-19\frac{1}{2}^{\circ}$ Fahrenheit, and the atmosphere was filled with crystallized particles, sparkling in the reflected light, and bathing the fading landscape in a golden mist.

From the ridge we descended into the valley of the Umtongee, where we camped at 4.15 P.M., but not before I had my nose frozen for the third time during the day, much to my alarm as well as discomfort. Vassilly succeeded in shooting three squirrels, of the same variety we had previously seen, the skins of which he preserved to sell to some trader.

One of the greatest peculiarities of the reindeer, which I feel justifiable in mentioning here, as it is one of the strangest traits of this little-known animal, is its extreme fondness for human urine. The scent of it makes them perfectly frantic, and, abandoning food or rest, they rush wildly from all quarters to procure it. A general fight, accompanied with the clashing of antlers, invariably ensues, and the person frequently finds it necessary to arm himself with a stout club for protection. The Tungusians often take advantage of this trait to capture an animal that has broken loose from the train or from its rider, though a mere feint is all that is necessary, as the deer understands the movements, and, to satisfy its curiosity, will approach near enough to be seized.

At 8 A.M. the following morning the thermometer indicated -31° Fahrenheit. I have frequently noticed that, just as the sun is rising or setting, it is colder than at any other time during the twenty-four hours.

In a northeasterly direction from camp was a high, prominent peak, called "Menmoioon" by our guides, from which, extending in a northerly direction, was a low ridge, in which a small tributary of the Umtongee has its source; this stream we followed to its head, continuing on yesterday's trail. At one point we struck a perfectly fresh trail going south, which at first alarmed us a little, as we feared it might be a party sent from Okhotsk in search of us; but shortly afterward we came upon their deserted camp, from the appearance of which we knew the party was native. Besides, numbers of loose deer were in the train, which satisfied us that the party was not on a lengthy journey.

After crossing the ridge about two versts north of Menmoioon Mountain, we descended into the valley of a small tributary of the Neotl River, which we followed in a northerly direction to its mouth, and then took a northeasterly course up the Neotl, passing numbers of old encampments.

About 4 o'clock Vassilly surprised us with the information that before night we would reach the old Tungusian's, the half-way point to which he had bargained to carry us. This we did not expect until the following day, but the old trails we had found shortened the time considerably. We now had a large, well-beaten trail for the next ten versts, over which our deer traveled at quite a brisk trot, seeming to realize that their journey was about completed. The snow on both sides of the trail for miles was cut up by the hoofs of these animals, indicating the proximity of a very large herd. Just at dark we reached a yurt similar to the one we had left three days before, but found it deserted. However, we were satisfied that the family could not be very far off, so took formal possession for the night. The afternoon was somewhat warmer than the morning, -22° Fahrenheit.

The morning of the 18th was even colder than that of the day before, -33° Fahrenheit. Selecting the trail that appeared to have been used most recently, we continued our journey up the Neotl at a lively trot, to overcome the cold, but had not proceeded more than seven versts when we came upon a couple of skin tents, pitched on the side of a low, bare hill. The barking of dogs aroused the inmates, and in a few moments we were surrounded by a motley band of men, women, children, dogs, and deer, curious to know what kind of creatures we were. They were partly expecting us, as six days before a Cossack, accompanied by a native, had passed through the settlement for Nelkan, with dispatches for us from Major Abasa, who had arrived in Okhotsk some time before. Further than this we could learn nothing. We had unfortunately missed them, they having taken a different route from that pursued by us.

These natives were very lavish with their offers of hospitality, but we were anxious to reach the tent of the old starasta, three versts farther, so excused ourselves with many regrets and apologies, and, after a brisk ride of half an hour, arrived at the spot. Here were four tents, with a proportionate amount of natives, dogs, and deer, but the old starasta resided four days' journey farther, they told us. However, two of his sons received us, and promised deer to carry us to their father's tent. As it would be necessary to wait until

the following morning, we accepted lodgings with them for the night.

These Tungusians use a tent somewhat different from those of the low Ajan. It is conical, and made of skins like the others, but is raised upon light poles about four feet above the ground, around which other skins are stretched, making a kind of wall. It is much more roomy and comfortable, but not so easily and quickly erected. In the centre of the tent there occupied was a huge copper kettle, large enough to cook a whole deer in at one time. Its size betokened genuine hospitality. Certainly the inmates of the tent could not require such a kettle to supply their own wants, hence we inferred that there were generally visitors enough to make it requisite.

These rich old Tungusians, though rude in their natures, and not very nice in their customs and dress, are models of hospitality. No man ever left their tent with an empty stomach, nor did one ever enter without having food and lodging forced upon him. We had hardly unloaded our deer before Egory, our host, had slain one of the fattest of his herd, and shortly afterward the tent was filled with delicious fumes and savors arising from the mountain of rich, juicy meat in the big caldron.

We ate our meal with our host, and a hearty one it was, thoroughly enjoyed by all of us. But the enjoyment of eating was nothing when compared with that we experienced in seeing our guides and eight or ten others dispose of the huge pile of meat laid out before them in large wooden trays. Sheath-knives were their only table implements. Each one, taking a huge piece of venison, put as much of it as he possibly could in his mouth, and then, by a dexterous up-stroke of his knife, shaved it off close to his lips, the edge barely grazing the end of his nose as it severed the meat. Little children were as expert as the adults in handling their knives, and, though I was in constant dread of seeing one of their noses sliced off, the caldron was emptied without a single accident.

Tungusian women, as a class, are far from being prepossessing in their appearance; indeed, I can't conceive of human beings having more hideous countenances than they

generally possess. With many the cheek-bones monopolize the greater part of the face, and their eyes are simply long, very narrow slits, through which two small, cold, expressionless black balls peer. They have scarcely any intelligence, nor have the men, with few exceptions, as their low, narrow, and retreating foreheads indicate. But their affections are very strong, and their large hearts more than compensate for many of their mental delinquencies.

To see a good-looking Tungusian girl or woman was a great episode in our travels—so much so, in fact, that we never neglected making a note of it in our journals. Remarkable as the fact may seem, upon entering our host's tent we found ourselves confronted by two of them, perfect oases in the desert of ugliness that surrounded them. Their clear, semi-transparent brunette complexions, rosy cheeks, large, full eyes, and faultless teeth, would have graced any woman; these probably accounted for the numerous visitors their father received. Their features were not altogether void of Mongolianism, but possessed just enough of it to add a wild charm to their beauty. Their costumes were in keeping with their station, for they were great heiresses, and of good family. Fresh, new, neatly-fitting suits of spotted fawn-skins, cut after the usual pattern, composed their dress; and their feet were incased in the neatest little fur-boots, the tops of which, together with small aprons and other articles of their apparel, were decorated with fancy patterns of bead-work. In addition to the large silver ear- and finger-rings usually worn, each had a broad, handsomely-engraved silver collar, such as we had not before seen, fastened around her neck. But, alas! there is an end to all things earthly, and so I found it with the fascination to which my susceptible nature had slightly yielded at first sight of these belles. When dinner was announced, they were the first at the trays, and a more skillful handling of sheath-knives or rapid destruction of edibles I never beheld.

Here we separated with our old guides, who claimed that they had fulfilled their agreement in bringing us half way; but Egorov told us it would yet take twenty days to reach Okhotsk. If such should be the case, Vassilly deceived us greatly; but he had been so faithful in every other respect

at we preferred to treat it as an error of the head and not the heart.

We started out the next morning, February 19th, in a temperature of -36° Fahrenheit, having large, fresh deer and a good road. Egory and an old Tungusian, who groaned all the way from cramps of the stomach, accompanied us as guides. Ascending the Neotl a few versts, we crossed it and took a northerly course until dark, when we reached a spot where two families were encamped. With one of these we passed the night quite comfortably, in spite of ill odors, a lingering smoke, and the constant groans of our poor old guide.

The following morning was much warmer, -20° Fahrenheit. From the tents we crossed a low wooded ridge, and descended into the valley of the Miakan, a branch of the Neotl. Having crossed a frozen lake, produced by the overflowing of the Miakan, for several versts we traversed burned land, and then, passing over another ridge, descended to the Elikan, a tributary of the Mia.

Across the Elikan we ascended another ridge, reaching the summit at 3 P.M. Here were good feeding-grounds, and our guides were anxious to camp, as for the following fifteen versts the country had been burned over, and it would be very late before we could reach deer-feed. They assured us that, by making an early start the following morning, we could reach the old starasta's that day; and, being anxious for the Dkhotsk Cossack to overtake us with his dispatches, we decided to camp. There was no doubt but that the Cossack would hurry back on his trail as soon as he should hear of our departure at Nelkan.

The next morning, after crossing the burned tract and two low ridges, much to our surprise, at 11 A.M. we came to the group of tents where the starasta lived. It was now plain that Vassilly had not deceived us, but that these natives had made the distance longer in order to get a better bargain for the use of their deer. The journey which they said would occupy us four days, might not, in reality, consume more than day and a half.

The tents, of which there were four, were pitched in a group in the midst of a forest of larch, with a slight sprink-

ling of spruce-trees. The snow was all tracked up by the feet of deer, about forty of which made a charge down on our train as we approached the tents, but were easily driven off. Upón hearing the rush, about twenty natives crawled from their tents, old Ivan, the starasta, at their head, and received us very cordially. We were guided to the tent of one of the other natives, for which the old man apologetically excused himself on the ground that he had become a great-grandfather the night before. We decided to remain here until the Cossack should overtake us, and immediately set Ivan and the guides at work pitching our tent near by. In the mean while, seated cross-legged on the green boughs in the tent of the starasta, we discussed the contents of a large kettle of tea with our host; but when we withdrew after the first three cups, he expressed the greatest astonishment, and in a half-injured tone asked us if his tea was not good. We assured him that it was excellent, and, after expending a good many words, made him understand that Americans were not accustomed to tea, and could not drink much of it. This seemed to amuse him very much, and he told us that he had many times, singly, emptied two kettlesful at a sitting—about six quarts. This we had no reason to doubt; but, to please the old man, we expressed great astonishment, and complimented him as best we could for his great achievements. He appeared very anxious to know all about us, our names, residences, and asked numberless questions about America and Americans. We answered all as best we could, which was no trifling thing, as both questions and answers were translated into four different tongues before reaching their destination. Swartz converted them from English into Russian, Ivan from Russian into Yakout, and Egory translated the Yakout into Tungusian. During the conversation he unintentionally administered to us a very severe and probably deserved rebuke, which somewhat nonplused us, and, I confess, I hardly knew what answer to make. It was just as we seated ourselves to drink tea. He, according to his religious custom, before taking a mouthful, devoutly bowed his head, and, muttering a short prayer, crossed himself before a small image suspended to the side of the tent. Having noticed that we did not do likewise, he said nothing for some time, but at

length broke the silence by asking, "Do the Americans have a God?" We immediately knew what suggested the question, but had to answer "Yes." At this reply he appeared much puzzled, and was again silent for some moments, thinking. Finally he again raised his head and asked, "Do the French have a God?" Our answer, "Yes," seemed to puzzle him all the more, and it was some time before we could comprehend why he had asked the same question concerning the French. We afterward learned that nearly all of these natives have a very bad opinion of the French, founded on exaggerated accounts of the barbarity of those people during their war with Russia. How these accounts ever reached this remote section it is difficult to trace, but they certainly have a bad opinion of the French people, and the old man probably thought that if the Americans, who exhibited so few traces of religion, had a God, it might be possible that even the French had one.

Not knowing how long we would remain here, and our meat having given out, for a mere trifle we purchased a fine young deer, which our Tungusian friends offered to kill for us. The animal was very wild, and had to be lassoed. The Tungusians have a superstitious dread of shedding the blood of an animal in killing it, and, having fastened one end of a seal-thong to a small tree, they wound it round the deer's neck, and, drawing it tightly, fastened the other end to another tree. They then began to tighten it by resting their weights upon the thong, and in that manner proceeded to choke the animal to death. At first we did not comprehend their movements, but, as soon as we discovered their chief object, Ivan, our Cossack, dispatched the animal with his sheath-knife. This aroused the alarm and indignation of the whole settlement. But, feeling that they were absolved from all responsibility in the matter, they soon quieted down.

We were astonished at finding the game of ball, as described by Dr. Kane in vogue among the Greenland Esquimaux, and more commonly known among our American youth as "shinny," to be a very common pastime here. Large numbers of little fur-clad Tungusians were amusing themselves at it all the morning in front of the tents.

Ever since we commenced our journeyings among the

Tungusians, we had longed for an opportunity to witness the incantations of some of their shamans, but, the practice being at variance with their newly-adopted religion, they rarely employ it, except in a very quiet way and where it is not likely to be known. Still, they place the most implicit confidence in their shamans, and almost invariably, in cases of sickness or misfortune, resort to them to intercede with the evil spirits for their recovery or relief. Their original belief (and one to which the great majority still strictly adhere) was in a large number of good and evil spirits, associating one of the latter with each species of disease. They have some idea of a Supreme Being, but him they believe to be always benevolent, consequently do not consider it necessary to offer any particular homage to him.

The main object of their worship is to appease and propitiate other spirits, both good and evil, with whom they believe their shamans to have great influence. But, since the introduction of the Greek religion among them, many of them express an utter inability to know what to believe. Like the planets, held in their positions by the two great forces of opposite tendencies, so they are poised in a state of confusing uncertainty, drawn strongly in one direction by superstitious beliefs and the pagan doctrines of their fathers, which they had been taught since infancy, and in the opposite by the pure, ennobling doctrines of Christianity. Unfortunately for the advancement of the Christian religion among them, the priests, to whom they look for instruction, are, many of them, wholly incapacitated for the responsible positions they hold, through ignorance and a lamentable absence of all those virtues prompted by their religion. They seem to consider their responsibility at an end, as regards each native individually, whenever they succeed in persuading him, through the promise of tobacco or trinkets of some kind, to become baptized.

At length, on the morning after our arrival at the old starasta's, we thought our desire to see the shaman ceremony would be gratified, since old Ivan came to our tent saying there was a sick man in the settlement who wanted the shaman to perform over him, and asking our permission for him to do so. Why he should ask our consent we could never tell; but we readily gave it, and, in return, asked permission

to witness the ceremony. Soon Ivan returned, saying that the doctor was unwilling to have any spectators, as it would destroy the effects of the incantations, so we were obliged to content ourselves by listening from our tent.

Soon we heard the most hideous groans, hisses, and yells issuing from the sick man's tent, accompanied by the beating of a drum, now low and measured, and then suddenly increasing in sound and rapidity until the noise appeared sufficient to kill the most healthy man in the settlement. Again the drumming subsided, and the groans and yells increased, accompanied with low, quick mutterings, when suddenly all other sounds would again be drowned by the drum. This continued for three hours, at the end of which time we were all heartily sick of shamanism, and the patient was declared much better.

The man was very poor, having only two deer, one of which he had to give the doctor as compensation for his services. These shamans are, many of them, great rascals, and impose upon the credulity of their patients sometimes to the extent of extorting from them all they have in the world. Several of them have been severely punished by the government authorities, which is one reason for their being so shy.

The Cossack did not arrive until the third day of our sojourn—Friday, February 23d. From the dispatches we learned that Major Abasa was alone in Okhotsk, Mr. Kennan, with Mr. Dodd, who had joined the party at Petropaulovski after our departure from that place, having left the major at Ghijigha, a town at the northeastern extremity of the Okhotsk Sea, and gone northward to Behring's Sea in search of Mr. Macrae's party, that was supposed to have been landed near the mouth of the Anadyr River. The major had been in Okhotsk several weeks, and, hearing nothing of us, had dispatched the Cossack, with a native interpreter, in search of us. All were in perfect health, and their explorations had been crowned with the greatest success.

During our three days' rest the temperature had ranged from -20° to -30° Fahrenheit.

CHAPTER XX.

Herding Deer.—Nightly Detail.—Separating the Herd.—A Charge.—Our Caravan.—Arteran River.—Asungorun.—Colowinga Ridge.—Troublesome Deer.—Deermanship.—Guides desire a Halt.—Deceptions.—Snapping Morning.—Our Tent at Daybreak.—Morning Routine.—Striking Fire.—Justifiable Profanity.—A bejeweled Landscape.—Forty-six Degrees below Zero.—Early Start.—Asungorun.—Burned Tract.—Nuednice.—A dead Forest.—Parhelio.—Ounene.—Mertee.—Mixed-up Geography.—Alexai's Brother.—Deserted Yourt.—Dispatch Messengers.—Their Success.—The Convention.—Meeting of the Brothers.—Undemonstrativeness.—A Night Search.—A frigid Region.—Mahood's Departure.—Arrival of Deer.—On the Road again.—Horseshoe Course.—Mahood's Camp.—Elevated Lands.—Across the Juggur.—Contrast.—Descent.—Urta River.—Encampment.—Tala.—Umka.—A Treat.—Military Necessity.—Coulomkan.—Long and last Journey with Reindeer.—Dogs again.—Down the Oulia.—Sled from Ourak.—Departure for Ourak.—Swartz as Rear-guard.—Along the Coast.—Poorga Guides.—Ourak.—Habitations.—The Yakouts.—Character.—Appearance.—Early History.—Ending our Task.—Okhotsk.—Disappointment.—Desolation.—Okhota River.—History.—Summer Sports.—Fish.

WHERE reindeer are owned in such large herds as was the case with old Ivan, the greater part of them are in a state of semi-wildness, and, though they will not flee at the approach of man, yet their extreme shyness makes it very difficult to capture them. Like sheep, they always herd together, and look to certain animals as their leaders. Wherever these leaders go they follow, but can rarely be induced to precede them, except after being thoroughly trained. The Tungusians always make it a point to train these leading deer first, and to accustom them to the presence of man, after which they serve as herders for the rest, and prevent them from wandering off. This trait lessens the care of the owners very much, though great vigilance is required on their part to protect the herd from wolves, which are constantly prowling about. To effect this, one or two men are nightly detailed as a guard, an arduous task during some of the extremely cold or stormy nights.

The deer for our journey had to be separated from the rest of the herd, which numbered upward of three hundred, and

ssued, and to accomplish this, all the men, women, and children in the place were called into requisition. It was quite novel sight to see the animals dashing about beneath the ees in large bands, their heads surmounted by a forest of stlers, clashing together and causing a noise as if two armies were engaged with single-sticks. Here and there in the midst of the flock, or rushing around to head them off, were the natives, large and small, whooping and shouting at the top of their voices, while many of the men, with long seal-thong lases, stood ready to capture those destined for the journey. At length all were secured, and the work of packing and saddling being soon completed, we once more resumed our journey.

We had hardly gone 300 yards when a loud clattering of hoofs was heard, and, looking back, we beheld the whole herd dashing up, intent upon following us. Nothing could be done but to halt and summon the population once more. Half an hour devoted to running and shouting sufficed to drive them back, after which we were allowed to proceed in peace. Our Tungusians accompanied us, to relieve each other in making a road. These, with the Cossack sergeant and his interpreter, in addition to our own party, made quite a respectable caravan. Having a good road, we traveled quite easily to overcome the effects of the cold, which, though not severe as we had experienced during many days, -25° Fahrenheit, yet was sufficiently stinging to be unpleasant for our three days' indoor life.

Two versts north of the settlement we struck a small stream called Arteran, running west and emptying into the Gimla, which in its turn flows into the Mia, a large tributary of the Lena.

We traveled eastwardly up the Arteran about ten versts, and then followed a small tributary flowing from the north about three versts. Here we had to cross a low, barren ridge, with a strong, cutting wind blowing against our backs, and descended to the head of a branch of the Asungorun. This ridge is called Colowinga by the natives. We continued our course northeastwardly down this stream for about seven versts, and camped for the night near where the servant had stopped on his way down. Thus far we had been

using the sergeant's trail, but, as his course had been very roundabout, the next day we intended to leave it and take a more direct course to the habitation of a Tungusian called Alexai, from whom we expected to get a fresh relay of deer.

The next day, Sunday, 25th of February, was still quite cold, -25° Fahrenheit. We kept our northeast course down the valley, breaking our own trail. This slow process, with the manœuvres of one of our pack-deer, delayed us very much. This animal had never been packed before, and would insist upon lying down in the snow every few minutes, or would pull back so obstinately as to haul the load from the shoulders of the preceding deer, to which he was fastened. Then the train would have to be stopped in order to readjust the load, for, as soon as the weight slips from the shoulders to the back, the animal breaks down beneath it. This was the cause of a great deal of delay during all our journeyings, particularly in mountainous countries; on an average, every half hour during the day some pack would get displaced and require readjustment.

Another of the deer, ridden by one of the guides, was also not thoroughly broken, and caused us some delay, but we were repaid by having an opportunity of witnessing a fine display of deermanship. The animal was large, strong, and active, and resorted to all kinds of tricks—kicking, bucking, and stumbling, but could not dismount its rider. To us it seemed a perfect mystery how the rider kept his seat, for, in spite of our long experience in riding these animals, it was an every-day occurrence for one or all of us to tumble off.

At 2.30 P.M. our men wanted to camp, and offered as an excuse that, for a long day's journey ahead, all the deer-food had been destroyed by fire. Long since we had discovered that this was a favorite excuse with the Tungusians when they wished to camp, and on several occasions we had been greatly deceived, the burned tract not extending as far as they had stated. Mistrusting something of the kind on this occasion, and wishing to lose no time, we were disposed to keep on, but one of the guides, a grandson of old Ivan, offered to take a whipping the following day if we should not find it as he had stated, which satisfied us that we were not being deceived.

Upon opening my eyes the next morning and thrusting my head from beneath the rabbit-skins, I immediately perceived that it was uncommonly cold. Our little canvas tent had a frigid appearance, and every thing was as quiet as death itself. Not the faintest curl of smoke arose from the little pile of ashes in the centre, and the circular hole overhead for the smoke to escape through was fringed with icy crystals. Three piles of furs and blankets around me indicated the places where my companions lay wrapped in oblivion, and as many miniature snow-drifts showed where their warm breaths, issuing from beneath the furs, came in contact with the cold air. One glance was sufficient, and, having awakened Ivan, I quickly recovered my head to await the kindling of the fire for the preparation of our regular tea and deer-meat.

Such mornings we used to pity poor Ivan, but he didn't seem to mind it much. He never undressed himself for sleeping, so his morning preparations were very simple. But then came the difficulty—to light the fire. Having no matches with which to ignite it at a single stroke, sometimes, for minutes, we would hear his flint and steel clashing together, the sound being occasionally interrupted by mild Russian oaths. Then we could hear him blowing, trying to get a shaving from the small spark on his tinder, when suddenly all sounds would cease for a while, and then would come a rattle of little stronger oaths, succeeded by other clashing of flint and steel. But we never would stir until we could hear the unmistakable crackling of burning wood. By this time the frost that had accumulated on Ivan's musciche and hair while making the fire would be melted off, and the tea-kettle singing over the blaze, when the good-natured "pora stavatch" would cause a general upheaval of bedclothes. Then, for about three minutes—not longer—with rattling teeth and quivering limbs, we would be donning our furs. This completed, the hot tea that now awaits us restores us to a condition of comparative comfort. On stepping outside the tent, all nature was incased in a stal covering. Trees that were dark the night before, at short distance could hardly be distinguished from the snow in which they stood. The effect was very striking, and

so frigid as to cause an involuntary shiver, even without the assistance of the low temperature.

But when, at length, the sun climbed above a neighboring hill, and cast its first beams upon the scene, as if by magic the whole landscape was changed to one of exceeding beauty. Every limb was studded with clusters of pearls and sapphires, and every twig was strung with diamonds.

My first impulse was to start toward the thermometer, which was suspended near the tent. The low temperature of -46° Fahrenheit explained all. Seventy-eight degrees below the freezing-point! This was by far the coldest weather any of us had ever experienced.

Having a long days' journey ahead of us, we left camp at 7.30 A.M., crossing the valley of the stream which we had been descending for nearly two days. From this we ascended a low ridge densely covered with dead trees, over which we traveled for about five versts, and then came to the Asungorun. This stream is here about two hundred feet wide, and flows west through quite a wide, wooded valley interspersed with small barrens. Not the first sign of living vegetation was to be seen any where. On all sides dead, charred trees and logs proclaimed the fearful havoc of some great conflagration. Whenever our train stopped, our deer would instinctively thrust their noses into the snow in search of moss, but immediately withdraw them with an air of disappointment.

We took a northeast course diagonally across this valley until 2.30 P.M., when we passed another low divide to the Nuednice, a tributary of the Mia. Crossing this, we ascended a small branch flowing from the northeast, and traveled until 5.30 P.M. before we emerged from the range of the fire and found deer-food. We had been on the road ten hours during the day, having made about forty-five versts in spite of deep snow and the necessity of breaking a trail. It is needless to say the guide did not take the whipping. By night there was a considerable change in the temperature, the thermometer indicating -34° Fahrenheit.

The following morning, February 27th, it was again colder (-40° Fahrenheit), and we witnessed a magnificent display of the same phenomena we had seen at the head of the Mai-

ikan on New-year's morn. The parhelia rivaled the brilliancy of the sun itself (which latter was dimmed by a frozen mist that hung over the earth), and the arches and circles of light were composed of the most brilliant rainbow hues.

Leaving camp at 8.30 A.M., we followed up yesterday's ranch a few versts, and then crossed a low ridge to a stream called Ou-ne-ne by the Tungusians. This stream is a tributary of the Mertee, which latter finds its way eventually into the Lena. We found it almost impossible to get any idea of the windings and courses of the innumerable streams that drain this immense inland territory. The information we obtained from the Tungusians was so conflicting, in many cases, that we were obliged to abandon all idea of tracing them, and we also found that different natives had different names for the same streams. That they all find their way into the Lena eventually is the only thoroughly reliable information we could obtain in relation to many of them.

We continued down the Ounene all day in a northeasterly direction until 4 o'clock, when we happened to meet a Tungusian hunter, who proved to be a brother of Alexai, the man we were in search of. The hunter had not seen Alexai since the previous summer, though living within one day's journey of him, and expressed doubts as to the latter having sufficient strength to carry us on. To avoid unnecessary delay, we immediately dispatched him in search of his brother, to notify him of our approach, and to request him to gather together the requisite number of deer for us from some other natives, should he not have enough of his own. Here we camped the night. At dark our thermometer indicated -29° Fahrenheit.

February 28th, at 7 A.M., -31° Fahrenheit. Immediately after breakfast we started two of our men ahead to break trail, ourselves following half an hour later. From camp we took an easterly course down the Ounene, occasionally crossing small barrens, and, after proceeding about eight versts, came to the Mertee, at this point flowing directly north. On the east bank, running along the foot of a low ridge, we found a large, well-beaten trail made by deer. The first animal that had passed went down stream, out of our course, and the tracks of only one led up the river.

Near by was a yourt, in which, our guides told us, Alexai usually lived. Toward this we directed our steps, sending a man in advance to learn whether or not it was still occupied. We soon met him returning, having found no one, and, being uncertain which way to go, determined to camp, and send out the guides—one up the trail, another down the river, and a third in search of the hunter we had met the day before, as it was evident he had not yet started in search of Alexai, his trail being nowhere visible. He was to have come to this place first.

At 2 P.M., the one sent on the back track arrived, bringing the hunter and family with him, having met them on the road to this place; and at 6 P.M. our guide from up the river returned, bringing Feador, another brother of Alexai's; but the third did not reach camp until 8 P.M. He was equally as successful as the others, however, and brought back three natives, so that where in the morning not a human being was to be found, at night there was an assemblage of seventeen. I was much surprised at the meeting of the two brothers. Though months had elapsed since last seeing each other, neither exhibited the slightest traces of astonishment or delight at meeting here; but, after simply saluting each other with three kisses, according to the custom of the country, without uttering a word of inquiry, they seated themselves, and began to fill their pipes to smoke. Whether this reticence was owing to deference toward us, or is a tribal trait, I am unable to say.

From this point our guides told us it would be better to ascend the Mertee to its head, and then recross the Juggur range to the Oulia River, which empties into the Okhotsk Sea about one hundred and forty versts below the town of Okhotsk. From the mouth of the Oulia we could continue our journey to Okhotsk with dogs; but, as there might not be a sufficient number of these animals at the place, in order to have the requisite number in readiness, Mahood determined to start on the following morning in advance with the sergeant, his interpreter, and three of the natives.

Alexai lived still farther up the river than Feador, and, as we could not procure sufficient deer without his assistance, it was necessary for the rest of us to wait a while longer.

Being favored with beautiful moonlight nights, we again started off two of the guides without delay to find Alexai. At dark the thermometer indicated -29° Fahrenheit. We were now in the proximity of the coldest region on earth, or, at least, that in which the severest cold has ever been recorded, the thermometer sometimes indicating -76° Fahrenheit, or 108° below the point at which water freezes. The coldest temperature experienced by Dr. Kane was -69° .

March 1st.—Mahood started in the morning with five deer, and a temperature of -34° to facilitate his movements. Our two guides did not return until 12 M. They, however, brought back Alexai and another Tungusian, who agreed to accompany us; but their deer and families did not arrive until quite late, and we were compelled to postpone our start to the following morning. Our guides had had quite a hard night of it. After finding Alexai, the three started out and rode all night in search of other Tungusians, to procure deer from them, and, when they found them, their trouble was repaid by a refusal to grant any assistance. This was the first and only refusal of assistance we had experienced from any of the tribe.

By 8 o'clock the next morning our deer were in readiness, and we started out up the Mertee in a southeast direction. At 10.30 we arrived at Feador's tent, where we stopped long enough to consult our pipes, and then pushed on, having fine traveling on the ice of the river for about eight versts. We then left the Mertee, and, striking through the woods in a northeast direction, came to the He-re-rin, one of its branches. Up this branch, in a direction nearly due north, we traveled until 5 P.M., passing Mahood's camp of the previous night, and making about forty versts, having Mahood's trail to aid us. Our course during the day had been like a horseshoe, but the guides told us we could not have taken a more direct route without being obliged to cross a high and difficult ridge.

The next morning it was again quite cold, -38° Fahrenheit. It being our intention to make a long day's journey and cross the Juggur range, we made an earlier start than usual. A few versts from camp we struck a large barren or tundra, through which the He-re-rin winds. From the farther

side of this barren the pass through the range was distinctly visible, distant about twenty versts. But none of us would have recognized in the low, inferior ridge ahead of us the Juggur range, that had reared such obstacles before us on former occasions. In fact, the whole country we have been traversing west of the range is of great elevation, and slopes so moderately toward the bed of the Lena that many of the streams have very little current, and wind almost directly back on their courses in places. Without having made scarcely any perceptible ascent, at 1 o'clock we found ourselves on the divide, but beyond the whole aspect of the country changed. Steep, rugged mountains, and deep chasms and gorges succeeded the wide, rolling basins of our last two weeks' travel.

Here we once more resorted to our snow-shoes for pleasure, and dashed down through a heavily-wooded chasm at an almost break-neck pace. Frequently, to avoid trees, we would have to throw ourselves at full length on the snow to check our speed. The change in the nature of the country, and the fact of our task being so nearly completed, made the day's journey very enjoyable.

At 3 o'clock we passed Mahood's second encampment, that of the night before. Smoke was still rising from the embers of his camp-fire.

At 5 P.M. we camped on the banks of the Urta River, the same we had been descending since crossing the divide. This stream is a tributary of the Tala, which in its turn flows into the Oulia. We found the snow much deeper east of the range. Temperature at night, -29° Fahrenheit.

The following morning it was again much colder, -38° Fahrenheit. We continued down the Urta River, arriving at its junction with the Tala at 10 o'clock, and then followed the course of the latter nearly due east, when we came to a Tungusian encampment at 1 P.M. Here we stopped only a few minutes. From the inmates we learned that Mahood had camped with them the night before, and had sent a native to Coulomkan, a settlement on the Oulia, about forty versts above its mouth, to get dogs in readiness for his farther journey. At this point we left the Tala, and, after ascending small branch about five versts, crossed a divide to a branch

of the Umka, which we descended to its mouth, and thence down the Umka to the Oulia.

At 6 P.M. we arrived at a deserted yourt, where we determined to stop until 10 o'clock P.M., to give our deer a rest, and then push on by moonlight to Coulomkan. Here we had a genuine treat in the shape of some fine frozen trout that the former occupants had stored away for future use. We, however, confiscated some of them as a "military necessity."

At 10 o'clock we renewed our journey after refreshing naps, pushing on by the light of a brilliant moon until 2 o'clock A.M., when we came to a couple of yourts in a poplar grove. This was Coulomkan; but every thing was quiet as death, and we began to fear that the place might be deserted; at length, by hallooing, we managed to provoke a feeble bark from an old dog that crawled from beneath one of the houses. This aroused the natives, who then came forth and invited us in. They were not expecting us until the following night. Mahood, who had arrived early in the evening, finding the dogs ready, had pushed on to the mouth of the river without making a stop.

Ourselves and deer were thoroughly exhausted by the long day's journey, having made upward of seventy versts. This, our last journey with these animals, was the longest we had ever made in one day with them. Though I did not regret changing our mode of travel for dogs, I must confess that our long journeys with deer had created quite an attachment for them on my part, and I felt very much as if parting with old friends.

At this point we found four dog-teams awaiting us, but the sleds were small and the animals so poor that they were insufficient to carry us to the mouth of the river. By putting the dogs together we made two respectable teams. With these Swartz and I started on in the morning, taking half our baggage, and leaving Ivan to follow with the remainder on deer. The Oulia is an exact counterpart of the Goram in size and character. We found very little snow—so little, in fact, that in places the traveling was quite hard for our dogs. We reached the yourt near the sea at 4 o'clock P.M. In the evening a Yakout arrived with a sled from Ourak, a village one hundred versts farther north. He had met Mahood on

the road, and, by his request, came on to assist us. It was our expectation to wait here two or three days for other sleds to arrive; but now, having three nartas at my disposal, I decided to push on with what baggage I could carry, leaving Swartz to follow with the other sleds when they should arrive. Ivan did not reach the yourt until 1 o'clock the following morning.

We made an early start with the three sleds, traveling northward along a wide stretch of barren country, bounded on the east by the sea and on the west by the Juggur range, which is here quite low. We crossed several small streams flowing to the sea, but very little timber was to be seen except on the distant range. A strong, disagreeable wind swept the tundra all day, carrying with it light clouds of snow, which made the journey very unpleasant. My driver told me that it was a very common occurrence for men to get lost in poorgas or severe storms while making this trip; and, as guides to such, all along the route, at short intervals, wooden tripods had been erected, the evenness of the country presenting no landmarks whatever.

At 8 P.M. we had accomplished the one hundred versta, and arrived at Ourak, a Yakout settlement containing eight or ten yourts, situated in a grove of stunted spruce-trees. I was immediately conducted to the house of the starasta, and could not help remarking the cleanliness of every thing as contrasted with the habitations of the Tungusians. Two or three neatly-dressed women immediately busied themselves preparing tea and supper for me, which they spread on a *clean* table. But what gave me most satisfaction was a large bowl of fresh, genuine cow's milk, thick with rich cream.

The yourts of these Yakouts were much larger than the others I had seen, and were constructed with greater regard to comfort. A row of bunks extended around the room as in the others, and various articles of furniture of their own manufacture, such as chairs and tables, filled the inner space. A large, crackling fire, in a well-built chual, cast a cheerful glare about the room, and every thing about the place proclaimed the thrift and industry of its occupants. I discovered only one drawback to the whole establishment, and that was a strong odor of cattle and stable that pervaded the apart-



YAKOUT YURT.

ent. This was soon explained by the bellowing of cows in adjoining apartment, separated from the one in which I was sitting by an open log partition.

The Yakouts are by far the most superior and numerous tribe of Eastern Siberia. They dwell in permanent abodes, and are very domestic in their tastes. Horses and cows are their constant companions, even sharing their houses with them. Both are highly esteemed for their flesh, and the milk of the latter figures largely in their bills of fare. They manufacture a kind of butter by boiling the milk, which is greatly used by the Russians, all over the country, as a substitute for lard, and it even answers as a good substitute for ble butter. They possess considerable intelligence, and display much acuteness in bargaining, but are particularly remarkable for their ingenuity in manufacturing jewelry, trinkets, and metal-work of all kinds, and in carving ivory after the manner of the Chinese and Japanese. Some of their designs are very beautiful. The town of Yakoutsk, 1000 versts distant, was built by them some three hundred years ago, and contains about 6000 inhabitants, mostly of their tribe.



YAKOUT WOMAN.

The Russians were a long time in conquering them, but, since they have adopted the Russian language, customs, and religion, they are quite devout, though many still retain a lingering belief in Shamanism.

They are of fair stature, more regular features than other natives we had met. Their complexion is also generally light, as in many of the women, is fair. This can not be owing to health, as a more robust class

ings I never beheld.* "Yakout" is a name given by the Russians, for what reason I do not know. They formerly called themselves Zinzacha, or Zinzogotock, in honor of their princes, and were composed of ten different tribes, numbering altogether more than thirty thousand. They were originally united with the Bratti, a tribe living in the neighborhood of Lake Baikal, but from them they subsequently seceded, and settled on the banks of the Lena. Their religion was very similar to that of the Siberian tribes, though they did not worship idols, but like the Tungusians. They offered sacrifices to one great invisible God, of whom each tribe had an image, with a stuffed bag for a body, surmounted by a huge hideous head. All trees they looked upon as sacred objects, and uncommonly fine ones they used to decorate with various trinkets. On the death of a prince, Müller says, it



YAKOUT MAN.

* Intercourse with the Russians has greatly improved the condition of the Yakouts, as will be seen by reference to a translation from S. Müllers Reise in 1761, in London, by Thomas Jeffries, entitled "Voyages et découvertes faites en Amérique pour compléter les découvertes de la Northwest Coast"

as their custom to sacrifice or bury alive with him his old servants or favorites, but other dead they sometimes left the streets of Yakoutsk to be devoured by dogs. One of their original peculiarities they still retain—their voracious appetites. At feasts they used to strip themselves, in order that their stomachs might have full scope for expanding, and it was a frequent occurrence for some of them to die on the spot.

Never was devout Mussulman, on his approach to Mecca, more elated at the prospect of fulfilling his life's dream, and more anxious to complete his pilgrimage, than was I upon finding that only twenty-five versts intervened between me and my destination. Nearly five months had elapsed since our departure from Irkutsk, and at last the goal was about attained, in spite of the predictions of our Amoor friends, who, no doubt, thought us long since retired to the shades of Hades. The distance traveled was not more than 1200 miles, but the time consumed and obstacles overcome had made it apparently three times as great.

After seeing sleds started toward the Oulia for Swartz, so great was my eagerness to be on the way that for once my rest was not relished, and daylight found us once more rapidly gliding along the barren coast. An hour and a half after starting, I thought myself near enough to distinguish Okhotsk. Ahead for at least twenty versts was an unbroken barren plain, bounded on the farther side by a low range of white hills. No signs of a town were visible, the even whiteness of the plain being disturbed only in one spot by an obscure, low, dark object, resembling a portion of a burned log protruding from the snow. I felt satisfied that I had been deceived as to the distance, and no doubt showed some signs of my displeasure, for the driver immediately gave a knowing grin, and, pointing to the burned log, exclaimed "Okhotsk!"

It is hardly necessary to say that I was disgusted. As we approached nearer, my Mecca gradually disclosed itself, and at length was enabled to make out a small collection of low, dirty log houses, in the midst of which stood a small church of the same material, surmounted by a dome and tower, but not a tree or shrub was within miles, or any object whatever to shelter it from the fury of the winds, no matter

from what direction they might blow. I never beheld any thing more thoroughly desolate in its aspect. We approached the town from the southwest, but, owing to bad ice on the Okhota River, were obliged to take a very circuitous course, and enter it from the north; and shortly afterward my driver drove up to a very plain, low log house, in front of which were two or three sleds, and twenty or thirty fine team-dogs. Once dismounted, and my journey was at an end. Neither Major Abasa nor Mahood were expecting me until the following day.

Okhotsk was once a town of comparatively great importance, but when Nikolayefsk was founded it was almost deserted. From here Behring started out on his voyages of discovery, his vessels having been built and launched at this point. The town consists of about thirty houses, heaped together without any regularity, in the midst of which, on an open space, stands the church, an unimposing log structure. Most of the former houses have been torn down and burned for firewood. The place contains about three hundred inhabitants, consisting of Russians, Cossacks, and Yakouts. An ispravnik also resides here; he, with two or three fur-traders, comprising the aristocracy.

The streets, if they can be so called, were literally alive with crows and magpies. No other shelter was afforded for these birds within a scope of miles.

In summer, however, the ispravnik afterward informed me, the place presents a much more cheerful aspect, and is quite a pleasant place to reside in. Game of all kinds abounds, from bear to grouse, and in the month of August the River Okhota so teems with fish, that for a time the waters are made unfit for use, on account of a taint imparted to it by dead ones. The latter constitute the chief food of the natives and peasants, and annually thousands are dried and stored away for winter consumption, both for themselves and dogs. Potatoes of small size, and a few other vegetables, can be raised, but the inhabitants are not much inclined toward agriculture. The dogs constitute a very important feature of the place, and are of a fine large breed. In summer they wade into the river and do their own fishing, and rarely fail to procure their regular meal.

Quarters were soon provided for us by the kind assistance of the *ispravnik*, and in two or three days we were comfortably established to await the arrival of vessels in the spring, to which time we expected to lead a life of indolence. But the prospect was not at all cheering, as the town and neighboring country afforded so few means of enjoyment, and I very early began to regret the completion of our journey. It was the major's intention to start back immediately for Ghijgha to meet Kennan, and make preparations to prosecute the work of building the telegraph line upon the arrival of vessels with men and material at that point.

Meanwhile we reluctantly discharged Ivan, our Cossack, and, having paid him liberally for his services, both in money and various presents, he once more turned southward to rejoin his family at Oudskoi. Poor fellow, we did not envy him the journey.



DOGS FISHING.

CHAPTER XXI.

Another Journey.—A comparatively pleasure Trip.—Short Notice.—Start.—Last View of Okhotsk.—Pavoshkas.—Luxurious Traveling.—Our Teams.—Indications of the Approach of Spring.—Tundra Hummocks.—The Sea.—Salt Ice.—First Duck.—Post-yourt.—Ena.—Fast Traveling.—Our Reception.—Change Dogs.—Native Curiosity.—Politeness.—The Town.—Poorga Indications.—Start.—Tumoff River.—The Poorga.—Frightened Drivers.—Moral Persuasion.—Climbing the Mountain.—Sleds Lost.—Pavoshka Traveling.—Lost in the Storm.—Dismayed Drivers.—A Lull.—The Summit.—Furious Descent.—Timely Precaution.—Narrow Escape.—Broken Sled.—Snow Caverns and Precipices.—Overhanging Masses.—Dangerous Traveling.—Fish Deposits.—Team-dogs.—Distemper.—Tedious Traveling.—Sled-road.—Cowey River.—Snow-squalls.—Road Lunches.—Imperial Ermine.—Dead Dogs.—Late Traveling.—Tansk Bay.—Hummocks.—Cutting our Way.—Repairing Sleds.—Tansk.

I HAD hardly become settled in the belief that my winter journeyings were ended, and was but just beginning to become reconciled to the idea of spending the following four months in the dreary, uninteresting little town of Okhotsk, when, one morning, Vushin, the major's Cossack, entered my quarters with a note from the major informing me that he would start for Ghijigha the following day, and asking me to accompany him.

To this I willingly assented, not only to gratify my curiosity concerning the country and natives far to the north-east, but the seven days' taste of Okhotsk life had sated me, and I felt that the most arduous traveling would be preferable to the stagnation that would certainly result from a much longer sojourn in this town. Besides, the journey to Ghijigha would be a pleasure-trip compared with the one just completed, for we were henceforth to abandon reindeer-riding, and adopt the less arduous, more comfortable, and rapid dog-sleds of the Yakouts and Cossacks along the post-route.

In some countries one day would be considered short notice to prepare for a 1200-mile journey; but our Siberian wardrobes, at the outset very incomplete, had dwindled down to almost nothing—three or four pairs of old socks,

th strings tied around the toes to close up some of the les, and two suits of ragged under-garments, out at the ees and elbows. Reindeer-riding wears out clothing very pidly.

Having procured a fresh supply of fur socks and mits, and t on all my under-clothing, so that no part of my body ould be neglected, my preparations were completed. About o'clock on the morning of the 15th of March the word was ven, and, with loud yelps and barks, our dogs started off, on bearing us beyond the sound of the final "good-bys" d "prostitaties" of our American and Russian friends whom e were leaving behind.

Dashing across the frozen surface of the Okhota River, our ute lay for some distance over a level, barren waste of snow, m which, looking back, the dark group of log houses that mposed Okhotsk resembled more a pile of rubbish in a va- nt lot than a town. Gradually, as the distance increased, e dark mass diminished in size, until, rounding a low, snow- d knoll, it vanished altogether from sight.

We had thought our first dog-ride on the Uda River the rfection of winter traveling, but the comfortable "pavosh- s" with which we were each supplied on this journey sur- ssed any thing in the shape of dog-sleds I had seen. These voshkas are low, long, and narrow, like the ordinary narta, t have a body constructed of thin boards, over the outside hich sealskins are tightly sewed, making them almost pervious to cold or moisture; and, in addition, the whole ide is thickly lined with long, soft bear or wolf skins, so at the traveler is almost smothered in the profusion of fur. e box or body extends the full length of the sled, and is tirely covered over except at the back end, where the veler sits or reclines, thrusting his feet and legs under the vered portion, which serves the driver as a seat. The back rtion of the sled has a top like that of a buggy, made to ise or lower at the option of the traveler, and is also thick- lined with fur. If the weather be stormy, a boot, or skin rtain, attached to the body of the sled, can be unrolled and stened to the top in such a manner as to completely shelter e person inside; but the driver has no protection whatever. The pavoshka, though so comfortable in its arrangements,

is but little used except by the more wealthy, who can afford to hire a driver, as it is impossible to manage or direct the dogs while reclining inside. Nearly all the inhabitants prefer to drive their own sleds, which at times requires no small amount of exertion and activity, and therefore keeps the blood in circulation, thereby preventing them from suffering from the cold. As the ordinary sled is much lighter and more easily managed in traversing mountainous or rough country, they always use it in preference. It is also much more convenient for packing.

To each of our sleds were attached from fifteen to twenty fine large dogs, perfectly fresh, and so invigorated by the cool morning air that they could hardly be restrained by the drivers from dashing off in a pell-mell race over the level extent we were now traversing along the sea-shore. The slightest movement of a dry leaf, or any object on the snow, would attract their attention, and then a furious race would ensue in pursuit of the object, resulting in a general melee and tangling of traces and harness. This was owing to the half-starved condition in which the dogs are kept while making a journey. At such times they become so ravenous as to be ready to devour any thing that has an appearance of life.

Already the approaching spring and neighboring salt air had begun to affect the snow, and in many places the knotty hummocks of the tundra were beginning to make their appearance, offering quite a serious obstacle to our progress. At these places all hands would lend their united strength to assist the dogs in dragging our heavy sleds, and it was really a pleasure to do so, as the noble little animals worked and struggled with such earnestness, every muscle strained to the utmost, and their tongues hanging from their mouths, each one in the mean while giving short, quick yelps, as if to encourage his companions. Fortunately we encountered but few of these places, and the traveling was generally very good.

For the first half of the day our route lay along the immediate edge of the sea. The water was covered with rotten salt ice, broken into large, irregular fragments by the action of the waves, and piled upon each other in the greatest confusion. The ice extended as far as the eye could reach, inter-

ersed here and there with small open patches of water, in one of which we saw a solitary duck paddling about, the first to revisit his old haunts after the long arctic winter, and a welcome harbinger of approaching spring to us, who were beginning to tire of omnipresent snow and ice. In the immediate foreground huge fantastic boulders and blocks of ice were stranded on the beach, some of them forty feet in height and thickness. I was astonished at the great thickness of these fragments, but, upon closer examination, found that they were composed of several layers which had been forced one upon the other and become cemented together. Many of them might easily have been taken for stone or earth on account of the sand and gravel that had clung to their sides while being rolled about in the surf before finding their final resting-places.

At noon, having arrived at a small post-yourt, we stopped to refresh ourselves with tea, and to await the coming up of one of our heavy sleds that had not been able to keep pace with the others. These yourts were well-built, comfortable huts, erected at government expense along the routes usually traveled for the protection of travelers during the severe storms that prevail during the winter months. Each yourt consists of a single room, upon one side of which is a raised platform, upon which the traveler spreads his bed; and in one corner is a "chual," or fireplace, like the one we saw at Solavaoff's, on the Arla River. They are unoccupied except by travelers, and are generally kept in good repair. From the yourt we struck inland more, toward the foot-hills of the Juggur range, which at this place is of inferior magnitude, and then continued our course eastwardly parallel to the coast until 10 o'clock P.M., when we reached the half-Russian, half-Yakout settlement of Ena. The barking of dogs as we approached the settlement was a most welcome sound, as my feet and hands had been suffering much from cold during the last two hours' ride, and the necessity of lying in one position during the whole day made the journey very tiresome.

After becoming accustomed to the slow progress and short day's journey with reindeer, this seemed like very rapid traveling, and in fact it was, considering the conveyances. We

had made during the past twelve hours one hundred and fourteen versts, or about seventy-two miles.

We were very hospitably received at the residence of a Russian doctor, with whom the major had stopped on his way to Okhotsk, and every thing that could be contributed to make us comfortable was freely furnished. Early the next morning all were astir making preparations for our farther journey. Our exhausted dogs were exchanged for fresh ones that were to carry us through to Tausk, and a noble lot they were, each sled having from ten to twenty of the little animals attached to it.

It did not take long for the news to spread through the settlement that there was an American in the place, and as most of them had heard of, but never seen one of these creatures, upon emerging from the house in the morning I heard a general buzzing sound, and, glancing up, found about two hundred of the inhabitants assembled around the doorway to catch a glimpse of me. I was scrutinized from head to foot, and every motion I made was followed by the eyes of the assemblage as if in expectation of seeing me perform some hitherto unheard-of feat; but withal they were very polite, and each individual, down to the smallest child, threw back his fur hood and bade me good-morning in Russian when I made my appearance. Ena, like most of these small settlements, contains nothing to attract the attention of the traveler, and is an exact counterpart of the other villages I had seen in the country.

The morning was dark, and milder than usual, and the heavens were concealed by a dingy, threatening cloud, from which indications our drivers predicted a poorga; but, as we felt certain of being able to reach one of the yourts on the route in case of a storm, we felt no hesitancy in starting out.

It was 9 o'clock before our preparations were completed, at which time, upon the signal being given, we dashed down a steep bluff, with half a dozen natives clinging to our pavooshkas to prevent them from capsizing. We then bade them "proschi," and soon the village was lost to sight. We continued steadily on in an easterly direction, now traveling on the winding bed of some frozen stream, and then through stretches of larch forest, until about 3 o'clock P.M., when we

came to a yourt on the Tumoff River, where we encountered a number of sleds laden with dried salmon for dog-food, that had been sent from Tausk to meet us.

At this point the route leaves the river and crosses a high mountain ridge to the head of the "Cowey" River. The poorga was now raging at its height, but the yourt was so sheltered among trees that we did not feel its effects in the least. Here we stopped to make tea, intending to push on over the mountain and reach the yourt on the other side, distant about twenty versts, before night. As soon as the drivers learned our intention, they assembled in mass, and begged the major not to attempt to cross the ridge in that storm, as they would get lost and perish, or be blown from the mountain sides down into the deep chasms. To these pleadings they added accounts in which whole parties had been lost in such attempts, and well-nigh persuaded the major not to go any farther. But these poorgas sometimes last several days, constantly increasing in fury, and, as we had neither food for ourselves or dogs to risk such a delay, we concluded that the best thing to be done would be to push ahead as soon as possible. At this some of the drivers revolted, and declared that they would not stir from the yourt; but the major, by a free use of a well-selected assortment of Russian epithets, accompanied by threats, and the unpleasant proximity of two or three willing Cossacks, overcame their obstinacy, and ere long we were working our way up the mountain side.

The wind was blowing a perfect hurricane, and, although sheltered by a forest of larch-trees, the snow fell so fast that we could not distinguish the leading dogs of our sleds. The old trail was entirely obliterated, and we were left to pick our way as best we might in the blinding storm.

Two or three sleds that were unable to keep up lost their way, as the tracks of our sleds had become covered up by the snow, and they only succeeded in finding us, after half an hour's delay, by hearing the hallooing of the men whom we had sent out within hailing distance of each other to discover their whereabouts.

The snow drifted into our pavoshkas so rapidly at the outset that we raised the skin curtains, knowing that we could be of no assistance to the drivers in finding the way; and, al-

though the scene was of the wildest confusion without, we were completely sheltered from the storm, and might have been perfectly oblivious of it had it not been for the howling of the winds, above which we could at times faintly hear the shouts of the drivers encouraging their dogs. Now and then our sleds would thump violently against a tree, or almost capsize in running over some hidden log, but no injury was sustained. After struggling for about two hours the train came to a halt, and with blank countenances the drivers assembled around our pavoshkas to inform us that they were lost. No traces of the old route could be found, nor could any landmarks be distinguished by which they could direct their course. At this juncture we decided that our only plan was to camp where we were until the storm should subside; but just then the wind lulled a little, and we sent parties out on snow-shoes in every direction to try once more to learn our whereabouts. In a few minutes we heard a joyous shout far to one side, and ere long all were hard at work assisting the dogs in dragging the sleds up the last steep range of the mountain. Once upon the summit we felt truly grateful, for henceforth our route was all down hill to the next yurt. The eastern side of the ridge was also completely sheltered from the storm.

I could not help remarking the total absence of trees or vegetation of any kind after passing the summit. Ahead, as far as the falling snow would permit us to see, was nothing but a dull whiteness, into which our dogs, after a few moments' rest, plunged on the full jump, with loud, excited yelps. The descent was very steep, and our headlong course so rapid that we might have imagined ourselves falling from a balloon. Not knowing what was ahead, the drivers, in order to check the speed of their dogs, were compelled to spring from their sleds and brace their feet forward against the snow, at the same time thrusting their pointed staves or ostles into the hard crust between the runners. The ostles tore up such clouds of fine snow as to almost envelop each sled from the view of the others.

This precaution for diminishing our speed was taken none too soon. The next moment we found ourselves on the brink of a snow precipice about fifty feet in height, which we bare

ly had time to escape by guiding our dogs to the right. As it happened, some of the dogs could not avoid going over it, but they managed to direct their course to a place where it was only twelve feet high, and escaped at the expense of a broken sled and one injured dog, who fell beneath it. The sled was soon repaired, and our journey continued, though at a more moderate pace. The route led down a narrow gorge, in which the snow had accumulated to a depth of more than a hundred feet in places, being blown from the neighboring summits, and the traveling was excellent except when we encountered precipices like the one we had just escaped. These precipices are occasioned by the action of the winds sweeping through the gorge with such force as to chisel out large chasms in the vast amount of accumulated snow, sometimes leaving perpendicular walls seventy feet in height, packed nearly as hard as ice, and again in many places scooping them out in such a manner as to leave tons' weight of snow overhanging our trail. These masses were constantly falling, making the journey very dangerous, to say nothing of heavy snow-slides that blocked our path from time to time. Only a short time before, my driver told me a man and his dogs had been killed by the falling of one of these masses. At 8 o'clock P.M. we arrived at a yurt near the "Sheelcap" River. Of this we gratefully availed ourselves for the night.

Before our departure the next morning, each driver, according to custom, deposited in small cachés one day's allowance of dried fish for their dogs, to be used on the return journey. This is a very wise precaution, it being not unfrequently the case that, through some mishap, they lose, or have to part with portions of their supply, and, were it not for these deposits held in reserve, they might be unable to regain their homes, or, if at all, at the expense of losing many of their dogs, which they prize very highly.

Though each settlement abounds with these animals, a large proportion of them are almost good for nothing. On this account, the finer and more intelligent ones are almost invaluable. A good lead dog, trained to go to the right or left by the sound of the voice, if also a good draught animal, will sometimes bring eighty roubles, about \$60. This is very

nearly a fortune in itself to these poor people, whose wants are so simple. The price of an ordinary dog is from five to fifteen roubles, according to the scarcity of the animals. A species of distemper breaks out every two or three years among the dogs of these regions, and almost invariably proves fatal; sometimes hundreds of them are swept off in a single week. At such times money can not purchase the survivors.

Our route was over an undulating, sparsely-wooded country, going eastward toward the Cowey River, which empties into Tausk Bay about two hundred and fifty versts farther to the east. The day was pleasant and tolerably mild, the thermometer indicating zero, and the journey would have been very pleasant had it not been for bad traveling. Caravans of nartas or dog-sleds always travel in the same track, if possible, packing down each fresh fall of snow upon the old road, so that, toward the latter part of the winter, they have a hard bed to travel upon two, and sometimes three feet above the ground, while upon either side of the narrow causeway the snow is so deep and soft that a man will sink to the waist.

This being the nature of the road we were traversing, we experienced great inconvenience, particularly since all traces of the old road had become obliterated by the recent storm, and our sleds were constantly running off into the deep snow. Then two or three men would be required to lift them back upon the track. To avoid an almost constant recurrence of these delays, we found it necessary to keep two men constantly in advance, on snow-shoes, feeling for the road with staves, some of the rest of us driving their teams in the mean while. In the afternoon it began to snow again, accompanied with strong gusts of wind; but dark found us at one of the yourts on the bank of the Cowey River. The Cowey at this point is about one hundred feet wide, and well wooded on the banks with larch-trees, none of which exceed ten inches in diameter, however.

The next morning was yet squally and disagreeable, particularly to the drivers, who had to face it; but the traveling was much better. We continued our course eastward down the wide and well-wooded valley of the Cowey, some-

times traveling on the river itself, but mostly through the woods by more direct routes, to avoid the long and frequent meanderings of the river. At noon, according to our usual custom, we stopped at one of the yourts to make tea and have lunch. These lunches were generally very unceremonious and hasty. While tea was being prepared, Vushin, the chief Cossack, would get a raw, frozen salmon, and, with his sheath-knife, cut it up into thin shavings, to be eaten with salt. This, with frozen black bread, chopped into rations with an axe, at first constituted our meal; but, finding it very difficult and disagreeable eating the frozen bread, which was so hard we could not bite it without first thawing it in hot tea, we afterward adopted the plan of placing it in the fire, and, as fast as it thawed to a sufficient depth, sliced it off for use. For variety we sometimes ate dried salmon, such as we fed our dogs with, which, when carefully prepared, was very palatable.

This day, while sitting cross-legged upon the platform in the yurt eating, my attention was attracted by a small white animal, apparently of the weasel family, that darted back and forth beneath a pile of fire-wood in one corner of



THE ERMINE.

the hut, but its motions were so rapid that I could not catch a good view of it. I at first thought nothing of the animal, but, after it had made its appearance several times, I ventured to ask Vushin what it was. Much to my sur-

prise, if not somewhat to my disappointment, he informed me that this miserable-looking little creature, skulking about among old logs and in deserted huts, was the imperial ermine, that, from my earliest recollections, I had associated with kings and thrones. Verily "all is vanity;" and this first glimpse of the humble source of so much regal splendor had a tendency to lower at least one notch in my estimation the glory of majesty.

Every few versts along the route we found dead dogs that had starved or given out on some previous journey during

the winter, and been left on the road to perish. When, however, the sleds are not heavily laden, the driver, rather than lose an animal that has given out, will carry it on his narta until it recuperates its strength.

At 6 o'clock P.M. we arrived at another yourt on the bank of the Cowey, but, it being yet some time before dark, and we were anxious to reach Tausk, we pushed on to the next, which we reached at 10.30 P.M., though some of the more heavily laden sleds did not get in until near 12 o'clock.

We had yet upward of one hundred and twenty-five versts to go before arriving at Tausk, and, in order to accomplish it the next day, were on the road by 5 o'clock A.M. The day's journey was without particular interest, the traveling being good, but our dogs were too much exhausted to make very rapid progress. We traveled on the ice of the river most of the day, arriving at its mouth just before dark. Here we encountered salt ice once more, the mouth of the river being completely choked up with broken masses of it which had been drifted in by the tides and frozen up for the winter. Our only route was across these hummocks, in order to round a rocky promontory that jutted into the bay on the easterly bank of the river, and we found it a rough road indeed. Each sled had to be carried through separately, accompanied by four or five men to lift it over innumerable jagged ridges or lower it down into the ice chasms that intervene, so we worked along, first up and then down, now capsizing and breaking a sled, or plunging it forward among the dogs, when a most piteous yelping and howling would ensue as some poor creature would get jammed. The axe was brought into frequent use, chopping off jutting fragments and clearing a way, and the sound of it, together with the shouts of the men and the yelping and howling of our one hundred and fifty dogs, produced a perfect Bedlam. It was some time after dark before we got them all through, and even then only at the expense of several broken sleds and injured dogs, but, as we had only fifteen versts farther to go, and a good road before us, the sleds were patched up in some manner, and we reached Tausk about 9.30 P.M.

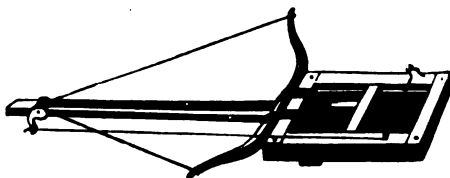
CHAPTER XXII.

—Population.—Tausk Bay.—Peeping.—Frank Leslie's and Harper's
 rials.—Government Postilion.—News from Kennan.—Value of Er-
 .—Ermine Traps.—Departure for Dobratown.—A lazy Team and
 lazy Driver.—Knowledge of "American."—Arman.—Lamut Chiefs.
 tive Livelihood.—Decoration.—Improvvidence.—Amusing Idea of
 graph.—Dosing the Sick.—Disease.—A Band at Sea.—Armani.—
 ict between Dogs and Deer.—The Polog.—Seal-oil Lamps.—Jour-
 zo Yamsk.—Forced Traveling.—Dogs in Boots.—Ice and Bone Sled-
 ers.—Agates.—Tinder.—Mode of making Fire.—Canine Character
 Peculiarities.—Leader's Sagacity.—Night Journey.—Buried in the
 .—Resurrecting.—Misplaced Confidence.—Yamsk.—Industry of set-
 Koraks.—A Poorga.—Along the Coast.—Toumane.—Outrageous Im-
 nce.—Ce chas.—Famished Dogs.—Postilion's Mishap.—A starving
 munity.—Criminal Negligence.—Annual Famines.—Abundance of
 —Government Aid.—Laziness.—Reliance upon the Lamuts.

JSK, which is situated near the bay of the same name,
 ins about twenty habitations, ranging from quite re-
 ble log houses to mere hovels. The population is a
 ed mixture of Russians, Yakouts, Cossacks, and Lamuts,
 is a hard matter to distinguish the one from the other.
 all speak the Russian language, and have adopted the
 an religion and customs. Tausk Bay had been fre-
 ly visited by American whalers in earlier days, on
 occasions they used to go ashore and barter for furs
 inkets of different kinds, so that we found the inhabit-
 quite familiar with American ways, and some of them
 understood many English words and phrases. Never-
 s, they exhibited great curiosity upon learning that an
 ican was in town, and during our stay long rows of
 eyes were continually peering through the cracks in
 artition that separated our own from the other apart-
 of the house. They also displayed a good deal of
 ess for pictures and other decorations. I was not a
 surprised at finding illustrations taken from Harper's
 rank Leslie's pictorials pasted upon the walls of many
 houses.

The same day on which we reached Tausk the government postilion also arrived, bringing letters with him from Kamtchatka and Ghijigha, among which was one written by Mr. Kennan from a small town called Anadyrsk, near the head of the Anadyr River, far to the northeast. When he wrote he had just reached that place on his way to the mouth of the river in search of Macrae and party, who we supposed had been landed at that point.

In conversation with the starasta, at whose house we stopped, I was much astonished at the little value placed upon ermine by these people. These animals bring so small a price from traders (about six cents each) that few make any efforts whatever to capture them, and then they trap only a sufficient number to pay their light church taxes. In this manner about fifty skins had accumulated on the hands of the priest, which he was more than willing to dispose of to me for the trifling sum of five roubles.



ERMINE TRAP.

He also showed me the trap with which these animals are usually caught, which is quite a curiosity in itself, and exhibits considerable ingenuity. It consists of a small rectangular wooden frame like that of a picture, in which a cross-bar is made to slide up and down in grooves on either side, something after the manner of the blade of a guillotine. A small strong bow is lashed to the upper part of the frame, but the arrow, instead of being a loose shaft, is fastened to the sliding cross-bar in such a manner that, when the bow is sprung, this bar is pressed quickly and firmly against the lower end of the frame. The trap is so placed over the entrance to the ermine's abode that the animal, to get in or out, has to pass between the sliding-bar and the bottom of the frame, and, in so doing, presses a fine string stretched across the aperture, and leading to the trigger. The pressure frees the

was spring, and, before the animal can get through, he is caught and killed without injury to the skin.

We left Tausk the following morning at 6 A.M. for Arn, or Dobratown ("good town"), as the whalers used to call it, and, though the distance was only half a day's journey, we took fresh dogs. Traveling was very rugged among hummocks and boulders along the shore, and my team, as I will venture to say, the laziest collection of quadrupeds that ever had the misfortune to be harnessed together. At this they had acquired through force of habit, owing to neglect of their driver, an exact counterpart of Dickens's boy. It required constant care on my part to keep the sled from going to sleep and capsizing my pavoshka among the hummocks, and at length, when we reached a smooth road, I experienced great relief.

Joe, by which name the fellow understood me to mean him, immediately coiled himself up for a comfortable nap on top of the pavoshka, leaving the dogs to follow the other sleds, and, as my curiosity was by this time fully aroused, I resolved to see what it would result in. The dogs, hearing a sound behind them, began to look back over their shoulders, and, seeing the driver asleep, gradually slackened their pace, and finally stopped altogether, and began to coil themselves up in the snow for quiet naps also. At this my patience left me, and, seizing the man's "ostle," which lay by his side, I gave him a hard poke in the side, accompanying the thrust with an imperfect representation of an Apache war-whoop. At the sound every dog sprang to his feet in perfect astonishment, but the only effect it had upon the driver was to cause him to roll his lazy body leisurely around toward me, disclosing his fat face distorted by a sickly smile. By great exertion he managed to utter the words "big size" in tolerable English, and then slowly began to coil himself up for another nap. Fearing lest he should go to sleep again, I tried to get into some kind of conversation with him. In reply to my question, "Do you understand English?" for some moments his face wore a blank expression, and then he replied "No sabez." Not wishing to give it up, I changed the form of my question, and said, "You sabez American?" to which he immediately replied, "Me small sabez," and then

began to tell me the names of different whalers he had seen in Tausk. As he continually repeated the same names over, he did not complete the list until we arrived at Arman, about 12.30 o'clock P.M.

This place is also situated on Tausk Bay, or near it, and is so like the town of Tausk that it would be difficult to distinguish one from the other. Imagine ten or a dozen tolerable log houses heaped together in a large dice-box, and then thrown out and left standing where they fell, without regard to regularity, and you will have the appearance of one of these settlements. But, to complete the picture as we found it, the houses must be half buried in huge snow-drifts, and the spaces around them thronging with half-starved dogs, crows, and magpies. These birds are never molested, and become so tame that I have seen them sharing the daily meal of the dogs from the same trough with them.

On his previous visit to this place, Major Abasa had sent word to some rich neighboring Lamuts for them to meet him here on his return, as he wished to bargain with them for a number of deer, to be used in the construction of the line. Upon our arrival we found them assembled, decked out in their best attire of reindeer-skins, ornamented with beads and trinkets of various kinds. One of them, a benevolent-looking old man, wore suspended to his neck a huge silver medal, presented to him by the Czar for his liberality in supplying some of the settled natives with deer to prevent them from starvation during one of their periodical famines.

These people depend mainly upon fish for a livelihood, but not unfrequently there is the greatest scarcity of them, and they are unable to secure a supply sufficient to maintain themselves and dogs during the long winter months. They are greatly dependent upon their dogs to go to neighboring towns and tribes in search of food, and, rather than sacrifice them, will share with them their last fish; after which they are mainly dependent upon the generosity of some of the Lamuts, or upon bark, roots, and berries for the wherewithal to sustain life. It was for assistance given on one of these occasions that the old man was rewarded. He valued his medal "even beyond his life," he said.

These famines occur every three or four years, producing

eat suffering, and often death; but the strangest thing of all is the neglect on the part of the people to profit by past experience. The moment their sufferings have ended they regret them altogether, neither do they make any provision for future emergencies of a like nature. Usually fish are so abundant that, with little extra exertion, they could lay in a supply sufficient to last them two or three years; but no sooner is their winter supply caught and dried than they abandon their nets, and give themselves up to feasting and dancing—satisfied with to-day, and willing to let the morrow take care of itself. The Lamuts are very similar to the Tunusians, having the same appearance, language, and customs, the only difference I was able to discover being in their name.

Those chiefs we met were quite dignified, and seated themselves with the greatest gravity to hear the major's proposition. They had plenty of deer, and were perfectly willing to kill any number of them, provided they were to be used for any other purpose, but evidently did not wish to encourage the building of the telegraph line. Thinking they did not thoroughly understand the object and nature of the line, the major explained it to them, telling them that it would simply consist of a line of poles extending through the country, and having a small wire stretched over the top. They were also told what advantages would accrue to them in having our posts and stations in their midst, from which they could procure supplies, cloths, and every thing needed, but nothing that was said seemed to satisfy them. At length one asked what direction the line would go; but, upon being told, they became decidedly gloomy and still more reluctant. We could not imagine why they were so opposed to the project until one of them, as if struck with a new idea, asked how far apart the poles would be. Upon being answered, their faces all brightened up, and they were perfectly willing to dispose of the deer. They knew the line would cross their usual routes of travel, but had supposed the poles would be so close together that they would not be able to pass between them with their deer. Without farther hesitation, they promised us two hundred deer in the spring, at two and a half dollars each (about \$1.87). It being our intention to push

on without delay, fresh dogs were immediately ordered for the journey to Yamsk, about four hundred versts distant.

During our short stay, all the sick and lazy of the place came to us asking medicine for their different complaints, knowing we had a small medicine-chest with us. In doctoring them medical knowledge was not at all essential, as far as *their* wishes were concerned, as they were perfectly willing to swallow any thing that we would give them, from arsenic to Dover's powders. But we confined our practice to the latter, to be on the safe side, and I have no doubt but that the effects were as beneficial as if we had used the former.

There was a great deal of disease among them, probably originating from intercourse with whalers. No means of checking its advancement were at hand, and at the time of our visit a large proportion of the inhabitants were hopelessly stricken with it. Some of them were merely living masses of putrefaction, perfectly sickening to behold. Hemorrhage of the lungs appeared to be quite common also. Occasionally, among the men, we encountered some poor fellow whose face was all scarred and features distorted by the teeth and claws of a bear with which he had struggled, and at rare intervals we saw traces of smallpox.

By cutting across an arm of Tausk Bay from Arman we might shorten our journey considerably, but at this late season the ice was very insecure, and the experiment would have been hazardous at the least. Only three years before, a party of natives, while crossing the ice at this same point, suddenly discovered that they were drifting seaward on a large sheet of ice that had become detached from shore. But fortune favored them, and, after four days' sailing, they brought up on shore near Okhotsk. Since this, the ispravnik had forbidden any of his people attempting it. From the town we ascended the bed of the Armani River, having a well-beaten track, which enabled us to make very good progress with our fresh dogs.

Only a few versts from the settlement we met a Lamut riding one deer and leading another, who, upon seeing our train coming, kept close to the river bank, hoping our dogs would not discover him. The sharp sight and keen scent of

the animals soon detected his presence, however, and in a moment their wolfish instinct was thoroughly aroused. Perfectly frantic and wild with excitement, the whole train, containing about two hundred dogs, dashed fiercely toward the deer, at the same time uttering loud bays and yelps, completely drowning the shouts of their drivers. It was impossible to restrain them, and most of the drivers turned their heavy sleds bottom up to check their speed; but, in spite of their exertions, three of the teams caught up with the hindmost deer just as he was about to ascend the river bank, and then ensued a scene of the wildest excitement. Ten or twelve dogs immediately fastened upon the poor animal and dragged it to the snow, but in an instant the drivers were in their midst, dealing quick blows right and left with their heavy ostles. The dogs obstinately persisted in the attack, and the deer, up to this time overcome with fear, having recovered its feet, began to recover its self-possession, and then, rage succeeding fright, it dashed boldly into the very thickest of its enemies, springing into the air and striking viciously with all four feet at the same instant. At length the dogs were driven back by the natives. The deer, then missing its companion, which had disappeared among the trees on shore, rushed madly to the middle of the stream, when the greater part of the dogs, restrained by their traces, were howling and springing into the air to free themselves. In a moment it was again dragged down, and, before the dogs could be again driven back, was so badly injured that it could not live.

We all very much regretted the occurrence, fully sympathizing with the poor deer for its sufferings, and with the Lamut for his loss; but a liberal compensation in money restored the latter to feelings of content, and we renewed our journey, traveling, without farther incident, until dark, when we camped in the woods, there being no yurt within a couple of versts. We disposed of ourselves *à la Korak* for the night, camping in a small Korak polog the major had brought with him from Ghijigha.

The polog is a small square inclosure, made of heavy deer-skins, tanned with the hair on, and made to be suspended by the four upper corners inside of the Korak yurts. It is about six feet square and four feet in height, being air-tight,

each one serving as a separate apartment for the different families residing in the same yourt. Upon retiring, the family carries into its polog a small lamp, consisting simply of a shallow wooden basin filled with seal oil, upon which a small bunch of burning moss floats. This not only furnishes light, but furnishes heat to the close, confined atmosphere inside, and soon makes it almost insufferably warm. We pitched the polog and tried the lamp; but, shortly after retiring, the heat and stench arising from the burning oil became insupportable, and we were glad to throw up the skin curtain, and breathe the pure cold atmosphere from the outside.

The journey to Yamsk was without particular interest, the country being undulating, thickly wooded with larch and spruce, and traversed by numerous small streams. We traveled late and early, camping usually in yourts, and stopping barely long enough to give our dogs and drivers time to rest before renewing our journey. With us it made no perceivable difference, as our comfortable pavoshkas enabled us to sleep on the road; and, as we intended to procure fresh drivers and dogs at Yamsk, we knew our present ones could endure a little deprivation of sleep for three or four days. But the heavy sleds and forced journeys were very trying upon some of the dogs. The surface of the snow, from partial thawing at noon-day, and after freezing, became rough, and, through constant travel, the bottoms of our dogs' feet became raw and lacerated. The drivers, however, were provided, in case of such an emergency, with small fur socks, that they put on the dogs' feet as a protection, and it was not an uncommon thing to see whole teams of these animals traveling along clad in boots.

At this season of the year the roughness of the snow is very destructive to the birch runners of the sleds also. In cold weather, to protect them, as well as to ease the running of the sled, every two or three hours during the day the driver turns his narta over, and, with a piece of deerskin saturated with water, moistens the shoes, and in a few moments they are incased in a smooth icy covering. If it is difficult to procure water on the way, they carry a bottle of it beneath their furs, next the body, to prevent its freezing.

These ice-shoes soon wear off in spring, however, and are consequently of little protection; but if the journey promises to be particularly rough, they shoe their runners with strips of bone hewn from the ribs of whales.

We found a number of agates on the gravelly beds of several streams, where they had become exposed by the snow thawing. These the natives use as flints in striking fire. Their punk or tinder is manufactured from the fungi growing on the birch-tree by boiling it in lye, though some of them create fire by friction, rubbing two pieces of wood together. Sulphur is found in some portions of the country, more particularly in Northern Kamtchatka, the natives say. They all know the value of it, and each one wears suspended to his tinder-bag a small bone or wooden basin of it, in which to place the punk when lit, and, by blowing, create a blaze with which to start their fires.

While making these long journeys I had abundant opportunities for studying canine peculiarities and characteristics, and on more than one occasion found myself watching their manœuvres not only with astonishment, but admiration. Their characters are as diversified as those of human beings, and I have even thought, many times, that I detected facial resemblances to persons I had seen at some time or another. They are possessed of great intelligence and acuteness, frequently outwitting their masters. Some are reserved and dignified, fully cognizant of the obligations that devolve upon them, and enter into their duties with conscientious zeal. These are placed at the head of the train, to set a good example to the young rattle-brains of good, honest intentions that follow them, but who, not being perfectly sound in judgment, require some wise Mentor to direct them. Behind these come the knaves—cunning, sharp-nosed fellows, with one eye always over the shoulder, watching the driver, pulling desperately when he is watching, and slackening up their traces as soon as his attention is diverted; but they are often caught in their tricks, and have become so accustomed to having the ostle thrown among them, that, the moment the driver raises his staff, they set up a piteous yelling, as if being killed, and rush underneath the bellies of the good dogs for protection. It is their delight to pick fights with

other teams passing by, and, as soon as the engagement becomes general, to withdraw from the contest and look on; or at night, while being fed, to swallow their fish at one gulp, and then take the supper away from a weak neighbor. They are always ready for a spree, jumping for every grouse that flies up, and trying to induce their companions to give chase, but only work when there is no other alternative. At the end of the train, where the driver can easily poke them up, are those who are both lazy and stupid. They seem to think it their duty, while going down hill, always to hold back, and let the other dogs drag the sled over them and mash them into the snow. They are always glad when night comes, take advantage of short halts during the day to catch "cat-naps," and in the morning, before starting, have to be jerked out of their snow beds and kicked half a dozen times before awaking.

But the finest of them all, though last mentioned, are the leaders. Intelligent, active, sensible, and discreet, they are guided altogether by the voice, and by their actions serve as a check on the rest of the team. I remember on one occasion, while traveling along, a fox started up near the trail, and dashed off in full view of the team. All the dogs became frantic except the leader, and started off in pursuit, dragging the leader along backward with them. He worked against them as hard as he could, but their united strength was too much for him. At this juncture he suddenly pricked up his ears, and, looking in the opposite direction, gave several sharp, quick yelps, and made a bound as if in pursuit of other game. At this the others all seconded him, and he led them in a sharp race until we had recovered the trail, when he quietly turned into it, and we proceeded without farther difficulty.

The third night after leaving Arman we traveled all night long, having a ready road, and early the next morning reached a yourt just as a heavy poorga overtook us. But the yourt was in a very dilapidated condition, and filled to the roof with snow, so that we had once more to resort to our polog. A heavy forest of larch sheltered us from the wind, but the falling snow came in such abundance as to obscure the nearest objects. Upon awaking after six hours' sleep, we found

every thing buried from sight, nothing but the tops of our sleds being visible. During that time, by sudden changes, the temperature had become warmer, and rain had succeeded snow, moistening the surface of that freshly fallen, and afterward it had again become cold enough to freeze, forming quite a stout crust.

Soon after stopping, our men and dogs, overcome with fatigue, had thrown themselves down to sleep; but, upon crawling from our polog, nothing was to be seen of them except the low, grave-like heaps that indicated their resting-places. Two or three shouts caused a crackling of the crust, and one by one their fur-clad heads broke through the surface, like so many corpses arising from their graves. The sight was very ridiculous to us, but might possibly have caused a little alarm to persons not expecting it. Shouts, however, did not suffice to resurrect the dogs, whether owing to the crust or content with existing circumstances, I do not know. In sleeping they curl themselves up into so small a space that not even hillocks indicated their whereabouts, and to find them we had to go to the sleds, and, catching hold of the long seal-thong to which they were attached, trace it up until an animal was found, when, by a sudden jerk, the crust cracked, and out popped a dog, perfectly bewildered with sleep and astonishment. Two or three sound kicks from the driver, followed by a yawn and good stretch, immediately restores him, and he watches the operation repeated with each of his fellows with evident satisfaction. In some cases three or four jerks were required to extricate them, the crust was so strong.

Vushin, the Cossack, told me that, on one occasion, while traveling, he had found it necessary to break the crust with a hatchet before he could extricate his dogs. It would appear that men or animals buried in this manner would experience a difficulty in breathing, but it is not the case, as snow freshly fallen lies so loosely as to contain all the air that is essential.

These people are generally very rough, and sometimes cruel in the treatment of their dogs, but it is the only way to keep them in subjection. Affection is a rare trait among the animals, and they have little appreciation of kindness. One of the dogs of my team, a fine, large fellow, was blinded

in one eye, and the day before, while taking lunch on the road, I perceived that the poor fellow got none of the spare morsels thrown to him, not being able to see them. This excited my sympathy, and, being a thorough believer in the humane treatment of animals, I attempted to feed him with a piece of dried fish from my hand; but with one gulp he took both hand and fish, leaving a couple of dents in the former as a token of his gratitude. He had always been taught to catch his food "on the wing," and no doubt expected to do the same on this occasion. The males, owing to their willful, savage natures, have to undergo an alteration to adapt them to the road. Some of the teams it is very dangerous for a stranger to approach.

On the 24th of March we arrived at the settlement of Yamsk, a small town containing about one hundred and fifty inhabitants, situated on Yamsk Bay. The inhabitants were nearly all Koraks (a tribe I had not before met), and had adopted the Russian language and customs, so that I could discover nothing in them different from the other semi-civilized natives along the coast. This place had also been visited frequently by whalers, from whom the natives had procured bright-colored paint, and decorated the interior of their houses in gorgeous style. The town, I think, excels the others in the construction and neatness of its houses, and the inhabitants appeared to be industrious and prosperous. As a token of their industry, we found that they had cut a large number of telegraph-poles since the major's first visit, to be used in the construction of the line.

It was our intention to have started on the next morning, but, upon awaking, we found the snow driving in clouds before a hurricane of wind, making it very difficult to go from one house to another. To have started in such a poorga would have been the height of folly, as we could not have proceeded a verst without losing our way, so we were constrained to delay our departure until the morning of the 26th.

A few versts from town we encountered quite a large tundra, across which extended a long line of tripods, formed of light poles, as guides in poorgas; but after this our way was generally through wooded country, sometimes traveling near the coast, where we occasionally encountered some kind of a

habitation, and then ascending a stream to a suitable point from which to cross a mountain range, and so on, each day being a repetition of the former. The next place at which we stopped was Toumane, one hundred and fifty versts from Yamsk direct, but the route we had to pursue made it much farther. On the road to this place nothing of interest transpired, unless I may except an incident which, though slight in itself, serves to show the outrageous audacity of some of these drivers. We had made a very early start in the morning, and, being somewhat exhausted from a late journey the night before, I raised the boot of my pavoshka, and was soon fast asleep. I don't know how long I had been in that condition when I was awakened by a heavy thump, and, upon opening my eyes, found my sled capsized. Expecting every moment that my driver would right it, I lay still; but, hearing no sounds outside indicative of such an intention, I shouted to Egor, the driver, in a slightly impatient mood, receiving in reply the invariable answer "*Ce chas*." "*Ce chas*" means, literally, "this hour," but is used by these people in the sense of "right away," or "immediately." I swallowed my indignation for a minute or two longer, poised in the mean while on my head and right shoulder, the rest of my body raised at an angle of forty-five degrees; but at the end of that time, thinking Egor meant "*ce chas*" in its literal sense, with great difficulty I partly extricated myself, and, peeping out, saw the fellow leaning against a large ice hummock, having a comfortable smoke with a companion driver. Had it been a load of dried salmon capsized before him, he could not have appeared more indifferent. It is easier to understand than to express my feelings on the occasion.

As we drove up to the small collection of inferior log houses that compose Toumane, a troop of half-famished dogs came dashing down toward us as fast as their feeble legs could carry them, and, scenting the dried fish on our sleds, rushed in the midst of our dogs to procure it. One poor fellow ran between my legs, and, seizing a fish that jutted from beneath the load, tried to pull it out. Not knowing the condition of the animal, I gave him a kick to drive him off, but, without loosening his hold, he gave a feeble yelp, and hung to the fish with still greater desperation. Our dogs immediately

attacked these, and bit them severely, but the poor fellows were so famished, that, with piteous yelps, they submitted without resistance, striving in the mean while to reach the fish.

A number of dead dogs, frozen stiff, were scattered about on the snow, at one of which, as we approached, two of the famished creatures were tearing with their teeth, trying to appease their hunger. It was a most pitiable sight, and one which affected all our party, particularly as our supply of dog-food was too limited to be shared with them. One of the natives came out, and, in answer to our inquiries about the dogs, said that the government postilion, in coming from Ghijigha, had been overtaken by a severe poorga just beyond the Villiga Mountains, and had been forced to sojourn in one of the yourts for ten days, not being able to cross the range. While stopping there, his dogs had consumed nearly all their food, and after the storm had subsided, upon reaching Toumane, not being able to procure a fresh supply of fish, he was obliged to abandon forty of these animals to perish from starvation. The poor creatures had been fed nothing for sixteen days.

Upon entering one of the houses, a scene of squalid misery presented itself to us which was equally as pitiable as the one outside. Two grown men of haggard appearance and indolent manner guided us inside, where were two or three women and several little children wasted to mere shadows from starvation. They had been subsisting for several days on bark and roots, having exhausted their winter stores of fish, and were now struggling to eke out a miserable existence until spring, when they would forget their winter's sufferings, and gorge themselves with the produce of their rivers, wholly unmindful of the morrow. The condition of the women and children was lamentable, all owing to the indolence of the men, and, after hearing their story, had it been in my power, I could have added to the misery of the latter tenfold without the slightest conscientious scruples.

At Toumane famines occur annually, and the misery of one winter is only a repetition of that of the preceding one. Yet I was told no other point on the coast afforded a richer harvest of the finest fish merely for the effort of capturing them.

Often two weeks of industrious labor will more than provide for a winter's consumption, and a few days' extra labor each year would enable the inhabitants to accumulate a supply that would for all time place them beyond suffering; but, with all these advantages, no people suffer more than they. Forgetful of the past, neglectful of the present, and unmindful of the future seems to be their motto.

They are furnished by government with twine with which to manufacture nets and seines, but, instead of making these and doing their own fishing, they give the twine to Lamutkas on condition that the latter will furnish them with fish sufficient for the long winter. Then, as soon as winter sets in, they give themselves up to feasting, consuming all their supplies during the first few months, and depending upon the generosity of some of the interior tribes for a living during the latter portion. But they often fail in their calculations, as was the case when we found them.

CHAPTER XXIII.

Departure from Toumane.—Villiga Mountains.—Piety.—A wise Swallow.—Passing the Ridge.—Villiga River.—A night Journey.—Lost.—A Yort full of Snow.—Surprising Endurance of Dogs.—Tavatoma River.—Hot Springs.—Niakhana.—News from Kennan.—His Exploration of the Anadyr.—Party rescued.—Uneasiness for Macrae and Arnold.—Ghijgha Gulf and River.—Ghijgha.—Journey ended.—District Head-quarters.—Early History.—Affanassa Shestakova.—Inhabitants.—Occupations and Amusements.—Fur Trade.—Easter Preparations.—Swinging.—Feasting and Fasting.—Easter Services.—Midnight Surprise.—Kennan, Macrae, and Arnold.—Macrae's Party and Experiences.—Late Arrival.—Building Cabin.—Fuel.—Winter.—Unenviable Position.—Trying Uncertainty.—Okakrae.—Tchuctchus.—Bargaining by Signs.—Macrae and Robinson's Adventure.—Life and Death.—Its Consequences.—Arrival of Okakrae.—Wewoki.—Departure of Macrae and Arnold.—Annoying Slowness.—Arnora River.—Overbearing Treatment.—Tchuctchu Conclave.—Deer-chief.—Threatened Abandonment.—Questionable Diet.—At Anadyrsk.—Surprise.—Kennan's Adventures and Travels.—Dodd.—Explorations completed.—Approaching Spring.—Appointments.—Preparations to depart again.—Our Sleds.

It being late when we reached Toumane, we stopped there for the night, and early the next morning, after leaving all the provision we could possibly dispense with for the starving inhabitants, we renewed our journey. The Villiga Mountains, near which the postilion met with his misfortune, is a high spur, extending down to the sea from the main continuation of the Juggur range, which latter follows the bend of the coast, and finally vanishes in low hills in the tundras far to the northeast of our present position. This Villiga ridge is always approached with dread by travelers, not so much on account of its inaccessibility and rugged sides; as for the strong winds that sweep through its gorges almost without cessation. There are three routes which travelers pursue to pass it. The first is to work along the base of the cliffs where the ridge terminates abruptly on the coast; but this is not always possible on account of the nature of the salt ice upon which a portion of the journey is made. The second, and best in fair weather, is a direct route over the ridge; but,

g to its rugged projections and steep sides, this route is dangerous, except on days when the weather is very inclement. The third is the safest but longest of the three, being necessary to make a detour inland, crossing the ridge at forty miles from the coast.

The last route we determined to pursue, not only on account of its feasibility, but to select a route for our proposed graph line, as neither of the others would be suitable for that purpose, and it would be necessary to examine the country farther inland. With this aim in view, on leaving Toumane we struck inland, traveling over a rolling and well-wooded country, and camping in yourts along the route, though our stoppages were very short, generally of not more than five hours' duration.

In all these yourts we found suspended or tacked to the wall small crucifixes, before which our drivers invariably knelt themselves upon entering. In one of them, directly beneath a small wooden cross, a swallow had built its nest the previous summer, cementing it against the smooth logs. The structure afforded so many corners and niches better adapted for nest-building, that the bird's choice in selecting the spot at the foot of the cross for rearing its young seemed to be the result of wisdom and forethought, and in this light our drivers looked upon it. To test their belief, I made pretense to pull the nest down, when they raised their hands in horror at the idea of my being so sacrilegious, and I hardly think I could have done it without experiencing a slight degree of compunction.

The second day after leaving Toumane, being favored with beautiful weather, we effected the passage of the ridge without difficulty, but, owing to the absence of a trail, were obliged to break one for our dogs with snow-shoes. The country was well wooded, and eminently adapted for telegraphic purposes in every respect. On the eastern side we struck the mouth of one of the branches of the Villiga River, which we descended nearly to the coast, arriving at the yurt where our postilion was delayed about 5 P.M. Having no confidence in a long duration of fair weather, we desired to get out of the locality as soon as possible, and determined to push on without stopping. Our course was parallel to the coast,

varying from three to five versts from the beach, and led over a broad extent of barren, rolling tundra, gradually rising as it receded from the coast, and terminating in a low ridge a few versts farther inland. When darkness overtook us, there was no wood convenient for camp purposes, so we concluded to push on through the dark to the next yurt. With night a light cloud settled over the earth, obscuring the stars from our view, and casting an uncertain shade over the snowy waste, so that we could not detect the point at which the snow ended and the heavens commenced. Our sleds appeared to be gliding through a heavy fog-bank.

We could no longer perceive the rise and fall of the tundra for more than a few rods in any direction, every thing, sky and snow, being of the same uncertain ashy hue, and, after wandering about a few hours, our guides declared themselves lost. Taking an easterly course by the compass, we decided to follow it until we should find wood enough to boil some tea, and then camp for the night. Hours rolled by, at the end of which, upon making a sudden rise, a quarter of a mile ahead we could see a long line of dark trees, the first objects that had met our gaze since night had set in. Our guides immediately recognized their whereabouts, and half an hour afterward, at 3.30 o'clock in the morning, we found ourselves before the yurt.

But here, another obstacle presented itself: the hut was nearly filled with snow. Our drivers at once set lustily at work with their snow-shoes shoveling it out, and in another half hour we were drowning our night's misery in brimming cups of delicious tea. We were all too exhausted to wait for supper before retiring, and even many of our dogs, though they had eaten nothing since the previous night, immediately coiled themselves up in the snow to sleep before they had received their daily allowance of dried fish.

The endurance of these little animals is perfectly remarkable. Two of the teams of our train had accompanied the major from Ghijgha to Okhotsk, a distance of twelve hundred miles, and, after only three weeks' rest, had made the return journey with us, drawing heavily-loaded sleds, and the greater part of the way leading the train. The dogs for our other sleds had been changed no less than four times, but

se two teams, in spite of long and forced journeys, held their own bravely. At the expiration of three or four days before they will have traveled two thousand four hundred miles, the last twelve hundred in the short space of nineteen twenty days.

The next morning we pushed on to the Tavatoma River, where there was another yurt filled with snow, but, there being indications of a poorga, and our dogs not having yet recovered from the journey of the previous day, we decided to stop over to the following morning. On this stream, a short distance above the yurt, are two or three hot sulphur springs, near which an old, dilapidated building stands, but, owing to long neglect, it was fast falling to pieces. Though the temperature of the air was -15° Fahrenheit during the day, that of the springs where it bubbled from the earth was $+130^{\circ}$ Fahrenheit. The water did not retain its heat long, however, after coming to the surface; the stream flowing from the spring was frozen up two hundred yards below its source. Making an early start the next day, April 1st, we arrived at Niakhana, a very small settlement only one hundred versts from Ghijigha, our destination. Our route was over a rolling tundra nearly the whole distance.

On the morning of the 2d of April we pushed on with the fresh dogs, expecting to reach Ghijigha by night. About noon we met a train of sleds coming from that place, and from one of the natives received a package of letters from Hannan, written from Anadyrsk, the same town from which he had written before. He wrote that, upon receiving indirect information through the Tchuctchus, the tribe inhabiting that section, that a party, consisting of five men, had been landed near the mouth of the Anadyr River, he procured a number of sleds, and immediately started in search of them. After fifteen days of hard travel, at a very low temperature, he reached the point where he expected to find the party long after midnight, but no signs of a house were to be seen. Weary, frozen, and discouraged, he was about to give up his search, when the driver of one of his sleds, in passing over a huge snow-drift, discovered a stove-pipe jutting from

This was the only indication of the whereabouts of the party they could find. Mr. Macrae had been left there with

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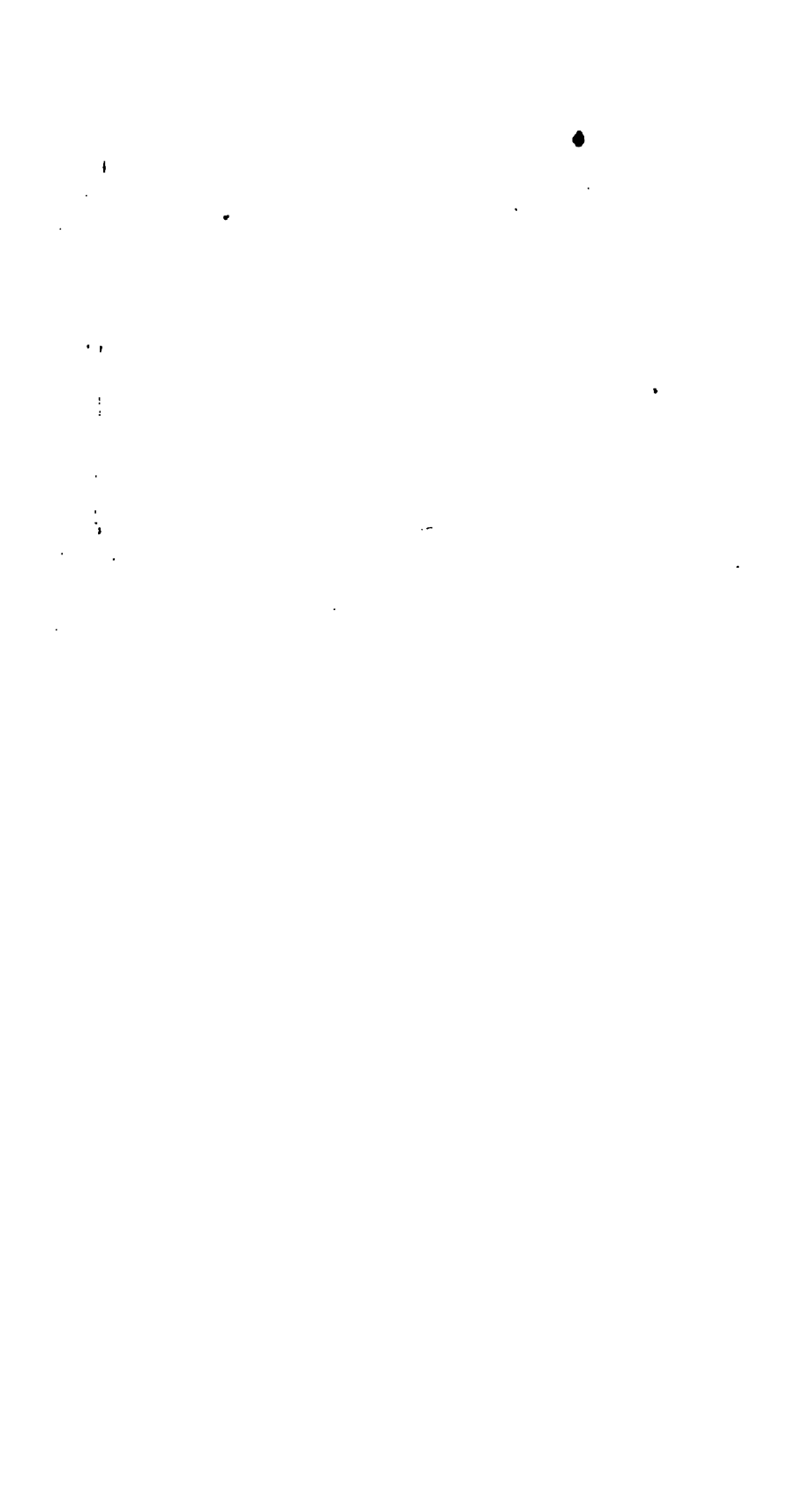
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and is fully accessible to blasts from every direction, there being not a tree, shrub, or hill within miles to shelter it. Owing to this, we found the weather-side of every house completely buried from sight by huge snow-drifts, through which the passage-ways had been cut leading to the doors or windows. There was no scarcity of snow on any side of the houses, however, since varying winds and circling currents of air, whipping around the corners of the buildings and through the open spaces, had distributed it with a bountiful hand every where. But this, though giving the town a frigid, white appearance, was not without its benefits, since the buildings were greatly protected from cold and wind by the snow, and were rendered much more comfortable than they would otherwise have been. The town contained about five hundred inhabitants, mostly Cossacks and half-breeds. There were about fifty of the former, together with their sub-officers, a *spravnik*, a doctor, and two or three priests.



LIGHT-HOUSE AT GHJIGHA.

Ghijgha is a place of considerable importance, being the seat of government of the district comprising that large portion of Siberia lying to the north and east. It is also the headquarters of all the semi-Russian fur-traders, who annually make tours to all sections of the adjoining country for the purpose of trading with the natives. Being upon the direct route by land from Southern Kamtchatka to the Siberian cities, it had the advantage of an annual mail, which came from Petropaulovski, with a postilion, early in the win-

ter, reaching Yakoutsck in the spring. It was one of the earliest Russian settlements on the Okhotsk Sea, there being a stockade fort here as early as the year 1728, when an expedition consisting of one hundred and fifty men, comprising Cossacks and Tungusians, under the command of a young officer named Affanassa Shestakova, was sent against the Koraks, a neighboring tribe. But they met with a disastrous defeat after proceeding about two hundred versts; a large number of Koraks surprised them during the night, and slew Shestakova, together with more than half his force.

In spite of its isolated location, the town, together with its inhabitants, possessed an air of superior civilization over the other places and people I had seen on the Okhotsk Sea. The buildings were well constructed and commodious, one or two of them being carpeted and papered, and a number of new ones were in course of erection, the necessary logs having been rafted for about twenty miles down the Ghijigha River. The people are intelligent and industrious. The men generally devote a large portion of the winter to making journeys with the fur merchants, carrying their stock for barter, and returning with the furs obtained. The women employ their time in tanning skins and manufacturing different articles of wearing apparel, some of which they decorate with beautiful patterns embroidered in different-colored silk and worsted, which they obtain from the traders. They are all extremely fond of pleasure, and "vechourkas," or dances, are of almost nightly occurrence.

This portion of Siberia, owing to the vast extent of tundra, or barren land, is not as productive of furs as many other portions, and even those skins that are found here are purchased at very high rates, as the natives, through long experience, have become pretty well acquainted with the values of the different articles. Kamtchatka, and some of the narrow belts of woodland bordering streams on the northern tundra, supply the sable and otter market. Beaver are procured from the Tchutchus, who in turn get them from the natives on the east side of Behring's Strait, giving in return reindeer pelts. Foxes of several varieties, and squirrels, are most abundant, particularly the former, as they are found in all localities. The accumulation of each winter's trade is immedi-

ately forwarded, by the way of Okhotsk, to Yakoutsck, from which point it is distributed among the markets of Europe and China, according to the demand for the different varieties. China always secures a large share, and pays very liberal prices.

At the time of our arrival the people were making busy preparations for the approaching Easter, which comes twelve days later than ours, owing to the difference in reckoning time. They had been undergoing a kind of fasting during Lent, and were all looking forward eagerly to the time when they could eat to their stomach's content without suffering conscientious pangs. But, owing to the scarcity and limited variety of food to be obtained, the priests are not severe with them, except during the last twenty-four hours, when they are not allowed to take a mouthful of any kind of food. Fresh paintings had been received from St. Petersburg with which to decorate the church for the occasion. The whole building was undergoing a thorough scouring at the hands of troops of barefooted women, who worked perfectly regardless of the temperature. Though not very cold, the atmosphere was sufficiently stinging to remind one that winter had not altogether loosened its hold.

Swinging is the favorite amusement of all classes at this season, and, strung along the river bank, several large swings had been erected, each capable of accommodating a dozen persons. They were propelled by the Cossacks in their gray uniforms, and the natives, all singing their melodious Russian airs the mean while. These people are all natural musicians. They have great love for music, and the majority of them, both men and women, have quite fine voices.

The night before Easter, up to the hour of 12, was devoted to feasting, in preparation for the coming fast; but, as soon as that hour arrived, all jaws stopped as if spellbound, and the inhabitants immediately assumed lugubrious, half-starved expressions of countenance, and without doubt many of them thought themselves fearfully hungry, though they had eaten only half an hour before.

Services were held during the day, and also at night, continuing until midnight, and were very interesting; but I did not await their termination, as it is customary, as soon as the

gun peals forth the Resurrection, for each individual to salute every other one present with three kisses, a proceeding I am not particularly partial to, where all ages, sizes, and sexes are concerned. When the services were ended, a general stampede followed, each one hastening his steps homeward, where a feast awaited him.

My quarters were in a large, comfortable log house, partly occupied by the family of a fur-trader. As I lay upon my bed, the last sounds that reached my ears before falling asleep were the crunching of viands, and the busy rattling of knives and forks. These sounds had hardly ceased to have an impression on my thickening memory when I was awakened by having the door of my room thrown open, and found myself confronted by three figures, heavily clad in furs, and their beards and hoods incrustated with frost. By their voices I recognized Kennan and Macrae; but Arnold, who was just recovering from a severe attack of sickness, to which he had been subjected while on the road, was unrecognizable. A few days after Kennan had written his last letter, these gentlemen arrived at Anadyrsk, having been sixty-four days making the journey from their hut at the mouth of the Anadyr. Immediately upon their arrival at Anadyrsk the three had started for Ghijigha, making the journey in about fifteen days.

The following account of the experiences of Macrae and party I insert very nearly as it was given me by those gentlemen:

The party was landed late the previous fall at the mouth of the river—so late, in fact, that they barely had time to land their stores and erect their quarters before winter set in. They were put ashore as high up the river as the lateness of the season would permit, in order to shorten their winter journey as much as possible. The river afforded no timber whatever with which to construct shelter, except a few pieces of drift-wood, and only a few boards could be obtained from the ship, so that at the outset they found themselves confronted by serious obstacles. At length they were obliged to dig a pit in the ground, about five feet deep, and nine by eighteen feet in dimension, over which they constructed a frame-work with drift-logs. The neighboring tundra afford-

abundance of trailing pine, the boughs of which they rove among the drift-logs in such a manner as to close e sides. Outside of these they made an embankment and dirt, rendering the sides impervious to cold, and king use of the few boards they had procured from the as roofing, they found themselves tolerably provided shelter. A good cooking-stove, with an abundant sup- f provision, promised them warmth and food, but for ey had to depend upon the pine brush and a few drift- hey towed from different points on the river. A good -boat was also added to their outfit, with which to ute their explorations on the river during the coming , should they fail in their winter programme.

ut completed, all hands employed themselves lustily ing in their winter supply of fuel, which they dragged e sand-spit upon which they had built their hut, using e Newfoundland dog, left with the party, as motive . They also took the precaution of constructing a long l-way of sod, as farther protection, leading to the door ut hut, after the manner of the Greenland Esquimaux. preparations were barely completed when winter was ed in by a violent wind, accompanied with a heavy fall w.

degrees they found themselves sealed in by icy barriers, iding all possibility of escape, and leaving them but lternative, that of facing the uncertain winter ahead, whatever fortunes or misfortunes it might have in store em. Their position was an unenviable one. Five men a foreign, unknown shore, to face an arctic winter for st time, and surrounded by a tribe reputed to be war- and barbarous, of whose language and customs they totally ignorant, and possessed of no means of making elves understood. They knew that there had once a small Russian settlement near the head of the Ana- ut whether such a place still existed or not they had no s of ascertaining. Their instructions were to proceed ead of the river, and then, if possible, work their way to the Okhotsk Sea, there to meet our parties; but, left without means of winter transportation, their only ative was to await the coming of the Tchutchus (the

wandering natives of the country), and then make the best arrangements possible. But, in the mean while, they were in a state of trying uncertainty, hoping to find the Tchutchus overrated in the accounts of their barbarity, and fearing lest these accounts should all prove too true. They were, however, well armed with revolvers and breech-loading carbines, as were all our parties.

At length a small band of Tchutchus, led by a native called Okakrae, arrived on a visit to their hut. These they found very peaceably disposed, and friendly relations were soon established. The natives lived about twenty-five miles distant, down the bay, and upon being made to understand, through innumerable gestures, that the party wished to ascend the river, their chief intimated to them, through signs, that after so many moons he would call and take them up with deer. Macrae tried to purchase deer and sleds to transport his party, but the natives would not sell any of these animals alive, having some superstitious scruples about doing so, though they supplied the party with all the fresh meat they could desire. After a while large numbers of Tchutchus arrived, driving their herds of deer to the mountainous and wooded districts farther south, to escape the winter storms that prevail on the northern tundra. They all appeared friendly, and, with the exception of the loss of an axe, spade, and a few other small articles that were missing after their departure, no inconvenience was experienced from their presence. Once, during the early winter, Macrae and Robinson started out in search of Okakrae's settlement on foot, to procure deer. They left the hut early in the morning, taking their rifles with them, and intending to spend the night with the Tchutchus. The day was calm and beautiful, and the ice smooth and firm, enabling them to take a direct route down the river and across the bay. They accomplished the twenty-five miles without difficulty, arriving at the locality they were seeking about 5 P.M., but, greatly to their disappointment, they found the Tchutchus settlement abandoned.

Tired and hungry, they would have rested, but, knowing they could not find the natives that night, and having neither food nor matches with them, they were constrained to retrace their steps, and endeavor to reach the hut as soon as

possible. To add to their misfortune, it had become much colder, and a strong, cutting wind began to blow. The first nineteen miles had to be made facing this severe wind, and they found it almost impossible to make any headway on the smooth ice. Their under-clothing had become moistened by perspiration during the exercise in the early part of the day, and now they perceived that the increasing cold was beginning to stiffen it about their persons. They saw at once that if they relaxed their exertions death would certainly follow, and, though tottering through exhaustion, yet spurred on with desperation, they struggled manfully to regain the shore, where they hoped to find more secure footing.

Night—dark, stormy, and bitterly cold, closed down upon them, and yet they had not effected half of the return journey. Their weary legs could barely support them, and the slightest unevenness caused them to topple and fall. At length Robinson threw himself down, and declared that he would have to freeze, as he could go no farther; but Macrae relieved him of his revolver and gun, and, by assisting him once more to his feet, on they struggled. Still some miles intervened between them and the nearest shore. Hour succeeded hour, and the wind and cold increased. None but almost superhuman exertions on their part could save them; but, fully realizing their danger, by mutual encouragement and assistance they struggled on. A heavy drowsiness succeeded their sufferings from cold, and it was with difficulty they could retain their feet. At length they regained the land, but the hut was still six miles distant, and Robinson avowed his intention of remaining there for the night. To sleep under the circumstances was to die, and Macrae, knowing this, had to resort to all kinds of means to urge his companion on. At length, after a long and desperate struggle, at 3 o'clock in the morning they found themselves at the entrance of their hut, nearly dead, but then the large dog did not recognize them, and would not let them enter through the tunnel. For some time they were detained outside, when one of the party from within came to their assistance. They were both badly frozen, and, upon removing their clothing, a thick coating of frost was found on their bodies. Robinson did not recover from the effects of the journey for three

weeks, being confined to his bed the greater part of the time. They had traveled more than fifty miles without stopping, having been twenty-three hours on the road.

At length the time arrived for Okakrae, the Tchuctchu, to make his appearance. Some time elapsed, however, before he presented himself, and then he had transportation for only two of the party. To Macrae's inquiries about the town of Anadyrsk, he could give no reply, never having heard the name probably, but he conveyed the impression that there was a settlement ten days journey distant up the river, called Wewoki, where a priest resided. As a proof of this, he exhibited a document written in the Russian language, and a small crucifix. One of the party understood the Russian language, and, as the document confirmed the native's statement, Macrae and Arnold resolved to accompany him, and to send for the remainder of the party immediately upon their arrival at the settlement.

To provide for accidental delays, they carried fifteen days' provision to use on the road. Taking care to arm themselves well, and having procured suitable clothing from the natives, they at length took their departure, descending the Anadyr to the bay, and then ascending another quite large stream flowing from the southwest, to which Macrae gave the name "Arnora," from the Tchuctchu pronunciation of Arnold's name. They made very short days' journeys, sometimes at night being able to see the spot they had left in the morning. However, since they were in the minority, and entirely at the mercy of the band they were accompanying, they could only submit, and at the end of the ten days they found their provision consumed and their journey barely commenced.

From the outset they had occupied a polog in Okakrae's tent, and, as their host assisted them in disposing of their provision, they were at an early day forced to adopt the Tchuctchu mode of living. Half-cooked deer-meat, and soup made from the contents of the deer's stomach, succeeded their own well-selected rations. At length they found their way to the grand rendezvous of the Tchuctchus, far to the south, where the old "deer-chief" resided. They were delayed here a number of days, and many of the other natives exerted all

their influence with Okakrae to try and induce him to abandon the party, and not carry them through to the settlement. Not knowing the object of the expedition, and Macrae having no means of explaining it to them, they feared lest the party might be spies, and were afraid of incurring the displeasure of the Russians by carrying them through. By occasionally exhibiting their uniforms, and documents addressed to the Russian officials, the explorers conveyed the idea to the savages that they were on an important mission; but even these did not altogether protect them from impositions and some abuse. On several occasions they thought it would be necessary to resort to their arms, though it would certainly have proven fatal to themselves; nevertheless, they saw the necessity of presenting a bold front. After being subjected to innumerable annoying delays and petty persecutions, and after being obliged for more than fifty days to adopt the Tchutchu mode of living, with all its disgusting details, on the sixty-fourth day after their departure from the hut they reached the settlement. Their surprise was most agreeable upon finding not only Kennan and Dodd, but the three gentlemen whom they had left at the mouth of the river.

Since I had last seen Kennan at Petropaulovski before our separation, he had also experienced many trying adventures, and won for himself an enviable reputation for energy, perseverance, and endurance. But his journeys were so lengthy and full of interesting details that I will not attempt to describe them, but will refer the reader to Mr. Kennan's own account of them, which have already been laid before the public.

At length our task was completed, and the whole tract of country lying between the Amoor River and Behring Sea had been traversed, and the route of the line fixed upon.

For nearly two weeks after the arrival of the party from Anadyrsk we gave ourselves up to such pleasures as the town afforded. Sled rides and snow-shoeing excursions filled the hours of sunlight, and the evenings were devoted to vechourkas, card-parties, and the rehearsal of our various experiences. Spring was making rapid strides, and the lengthening hours of sunlight, with the milder temperature of the air, promised

us an opportunity of once more seeing bare land and open water.

The Anadyrsk sleds that had brought Kennan and party were hastening their preparations to leave the Okhotsk coast, fearing lest their departure should be prevented by the opening of the rivers to be crossed. Already the balmy salt air and warm rays of the sun had made startling inroads upon the winter's accumulation of snow on the tundra.

I now, for the second time, thought my winter journeyings completed, and had settled down to the quiet enjoyment of stationary life, when I received an order from the major appointing me to the superintendence of that portion of the line to be built between Ghijigha and Behring Sea. Accompanying this order were instructions for me to proceed immediately to Anadyrsk with the sleds about to return to that place, and thence to descend the river to its mouth, to meet vessels destined for that point in the spring. Macrae had been appointed to the command of that portion of my district extending along the Anadyr River, known as the Anadyr Section, and was to accompany me.

We had but one day in which to make preparations for our departure. This was ample time, however, our wardrobes being entirely upon our backs, and there being no possibility of increasing our supply of wearing apparel except by the addition of a few fur garments of which we were in need. I abandoned my pavoshka, and adopted for this journey one of the lighter ordinary sleds, at the rear end of which my driver lashed several light poles in such a manner as to make a very comfortable support for the back. Macrae was supplied with a like conveyance. The major promised to follow us, after a few days, as far as Anadyrsk, from which place he intended to return with Messrs. Dodd and Robinson, whom he had appointed to positions in the districts commanded by Kennan and Mahood.

CHAPTER XXIV.

Departure from Ghijgha.—Molmofka River.—Yakout Yourt.—Purchasing Milk.—Dogs and Cow.—Yourt.—The Tundra.—Snow-blindness.—Desolation.—Usinova River.—Paren.—Eagles' Nests.—Early Start.—Poorga.—First View of Coeil.—A close Race.—Coeil.—Strange Buildings.—Pagan Sacrifices.—Seeking an Entrance.—Interior.—Zda-ro-o-o-va.—Cal-drons.—Curiosity.—Seat of Honor.—Vermin.—Koraks.—Appearance.—Costume.—Character.—Korak Meal.—Grunting.—Trading.—Korak Dance.—The Town.—Population.—Fuel.—Civilized Koraks.—Settled Koraks.—Reindeer-men.—Living.—Boats.—Weapons.—Snow-shoes.—Worship.—Passion for strong Drink.—Muck-a-moor.—Method of becoming Intoxicated.—Marriage Ceremony.—One-sided Affair.—No Dog-food.—Shooting with Bows and Arrows.—Insensibility.—Narrow Escape.—Running and Wrestling.—Start.—Meekina.—Inhospitable Reception.—Shestakova Settlement and River.—Ice-bridges.—Shestakova Khrebet.—Cold Traveling.—Snow Encampment.—Night Costume.—Aklan River.—Fish and Game.—Resuscitating Dogs.—Severe Remedy.

WEDNESDAY, April 18th, dawned fair and favorable for the commencement of our journey. The weather was sufficient-ly cold to make the snow firm and crisp, and the dogs, after their several days' rest, appeared to be in excellent condition. Some runners having been attached to the bottoms of our sleds in anticipation of rough traveling, and our road provision having been carefully packed away, after taking leave of our friends, the whistle was given, and off we started at a brisk trot over a rise of the tundra back of the town. In a few minutes all traces of the settlement were lost to sight.

It was quite late in the day when we took our departure, so we did not intend going more than thirty versts before camping.

After proceeding about ten versts we struck the wooded banks of the Molmofka, a small tributary of the Ghijgha River. Near this point we stopped at a yourt where a Yakout lived, to procure a few pounds of milk for road use, the proprietor being the owner of two or three cows.

It may seem strange to hear of buying milk by the pound, but at this convenient season of the year that article is bought

and sold in a frozen state, and can be carried for a long period in a simple bag. When required for use, the requisite quantity is chopped off with a hatchet or sheath-knife, and thawed as needed.

From the hut we traveled up the Molmofka through a forest of fine larch-trees, and just at dark reached a small road yourt, at which we camped for the night.

At the Yakout's house we came near having a repetition of the scene I had witnessed near Arman, but in this case the victim was a cow instead of a deer. The dogs pounced upon the animal and dragged her to the ground, but the kindly interference of the drivers prevented any great mischief being done.



THE TUNDRA.

By four o'clock the next morning we had renewed our journey, taking an easterly course from the yourt, over a vast barren tundra, leaving all traces of vegetation behind us. The snow of the tundra, having been subjected to the warm

ys of the sun for several days, presented a glassy surface, on which the reflected sunlight shone with such dazzling brilliancy that in a few moments our whole party was nearly blinded, and we were compelled to resort to our goggles for protection. Even these hardly sufficed to shield our eyes, and it was only with pain that we could look upon the snow at all. Our drivers were even less fortunate than we, as they were compelled to keep their eyes open in order to direct the dogs, and their protectors were not as effectual as ours. Some of these simply consisted of strips of tin perforated with small holes, or having long, very narrow slits cut through them, while others were of wood, shaped so as to fit the upper part of the face, through which were cut narrow slits, one for each eye.

After two hours' travel the dark line of timber had entirely vanished in the distance behind us, and we found ourselves ending our way over the trackless waste, which extended on all sides in undulating sweeps, bounded only by the horizon. The dreary solitude and awful silence that reigned over this rigid, lifeless expanse produced a feeling of strangeness at I could not overcome—a feeling as if some dread calamity was about to be launched upon us. I experienced a long-gone sensation, and felt that if I could only see some motion, nothing more than the fluttering of a dry leaf, or if a dead, rotty stump would only present itself jutting from the snow, how great a relief it would be! But no; there it lay, cold, dark, stiff, and motionless, the very corpse of Nature, over whose lifeless form we were noiselessly picking our way. For more than two hours I did not hear a word spoken, or a sound from man or beast. All seemed to be under the influence of the spell.

After ten hours' journey we came to a small frozen stream in the midst of the desert, called the Usinova River, from whose banks arose a dozen quite large, rough-barked, weather-beaten trees, from which the stream derives its name. Here we collected dry branches enough to cook dinner, and halted two hours, to give our dogs and men a chance to rest. At 5 P.M. we renewed our journey over the tundra, passing a chain of small frozen lakes; and at 10 P.M., just after sunset, descended to the bed of the Paren River, a stream about

one hundred feet wide, whose banks were bordered with narrow strips of fine forest, consisting of larch, spruce, birch, and a kind of poplar. I counted six eagle's-nests in the tree-tops, all in sight from our camp, on this stream.

At 3 o'clock in the morning I was awakened by snow falling on my face (we had brought no tent with us), and, upon opening my eyes, found it broad daylight, but the heavens were partially obscured by threatening clouds. Fearing a poorga, and being anxious to reach the Korak settlement of Cocil, about thirty versts ahead, before the storm should break upon us, we barely took time to prepare tea before starting out. Emerging from the narrow wooded belt on the east bank of the Paren, we ascended a long, gradually-sloping plain, and once more found ourselves on an elevated, rolling tundra, similar to the one we had crossed on the previous day. Over this waste we traveled for several hours, during which the dreary monotony was undisturbed by the appearance of the smallest twig or any object whatever. Even the tracks of former caravans had been obliterated by a fall of snow during the night, and on all sides, extending to the horizon, was an unvarying, unbroken whiteness. I can conceive of nothing more dreary and uninviting than these tundras in winter.

On this occasion we passed it under the most favorable circumstances. The morning was mild and calm, and overhanging clouds protected our eyes and faces from the dazzling rays of the sun. But the very stillness was ominous, and we were in constant expectation of feeling the first blast of the inevitably-approaching poorga. The constant shouts of our drivers, and their efforts to urge on the dogs at a more rapid pace, showed that they fully understood the threatening indications.

About 10 A.M., as we attained the crest of a low elevation, my driver, after gazing for some moments ahead over the plain, called my attention to a barely perceptible dark line on the verge of the horizon, at the same time muttering the word "Cocil," and immediately afterward the dogs, seeming to realize the proximity of shelter, started off on the full bound. But it was a sharp race, for about this time we saw the snow beginning to rise in puffs from the tundra in the

stance, and in a few moments we found ourselves enveloped a thick cloud of snow, that swept the plain with the force an avalanche, accompanied by a furious, cutting hurricane cold wind. Our dogs staggered, and the sleds reeled before the blast.

As soon as the settlement was pointed out to me, I took its bearing with my compass, and it was well I did so, as we had depend upon its guidance for the rest of the way, though none of the drivers exhibited no small amount of contempt for the idea of a small brass box knowing more of the country than they did. After an hour's struggle against the gale the wind suddenly lulled, and directly ahead several large dark objects loomed up through the driving snow, which we knew once to be the habitations at Coeil. But such habitations had never before been seen, and, had I not been prepared for a strange sight by the accounts of our other parties who had previously visited the place, I would have been at a loss to comprehend their object.

Before me was a group of log structures, each one more resembling a huge hour-glass than any thing else I can compare them to. This effect was produced by the fact that the habitable portion of each establishment was all beneath the ground, nothing but the conical roof being visible. On top of this is poised another inverted roof of about the same size, supported at the outer rim by long poles, which in many cases extended above the structure. To these several dead dogs were suspended as sacrifices to the pagan gods, the pointed ends of the poles being thrust into their necks. Belonging to each house, and erected on a scaffolding near by, several feet above the snow, out of the reach of dogs, were conical and pyramidal structures used as store-rooms. About these were suspended their fish-nets, dog-harness, and every thing that might possibly aid in appeasing the ravenous appetites of the troops of half-starved dogs that thronged the settlement.

As we drove into the place, the inhabitants swarmed on the tops of their houses like so many bees, and began to gather about us to ascertain the object of our visit. Being desirous to get shelter, I walked around the habitation before which we had stopped with the hope of finding an entrance

to the place, but failed completely in my object, and was at a loss to know what to do, when a large, round-faced, good-natured Korak came to me, and made signs for me to follow him. We ascended a long pole, in which a series of holes were cut as steps—no mean feat in itself—when I found myself in the basin-like apparatus on top of the hut. This place was decorated with sealskins stuffed with putrid seal-fat used as food, and with snow-shoes, dog-harness, and several little pups choked to death with wisps of straw, the latter also as sacrifices to their pagan gods. In the middle of the space was a dark hole, about two feet square, leading to some subterranean den, from which issued clouds of smoke, and a most villainous combination of all the most disagreeable odors.

Chekin, my guide, and the proprietor of the yourt, after glancing back to see that I was following, with a smile of encouragement stuck his feet in the hole, and, grasping another pole like the one we had ascended, rapidly disappeared from sight. I followed as best I could under the circumstances, being ignorant of the premises and stifled with smoke. Down, down I crept, vainly stretching out my legs every few steps with the hope of touching bottom, and had about concluded that the place must be the entrance to the bottomless pit, when I found myself on solid footing.

The moment I struck, salutations came from the impenetrable gloom on all sides, to which I replied, in the same words and tones, "*Zdu-ro-o-o-va*," but I was unable to distinguish a single object for some moments afterward. When my eyes became accustomed to the darkness, I was enabled to find my way to where Macrae was sitting, he having entered while I was hunting for the door outside; and then, by degrees, the nature of the establishment disclosed itself.

The apartment was octagonal in form, and about twenty-five feet in diameter, constructed of drift-logs standing on end, and the whole supported by a heavy frame of smoke-blackened, glossy logs. The aperture through which we had descended was about twenty-five feet above the dirt floor, and was hardly discernible through the dense smoke that filled the upper half of the room. Extending around the apartment, about two feet above the floor, was a wide platform burdened with huge piles of filthy fur bedding and

thing, upon which sat or reclined from fifteen to twenty oraks of both sexes, from hideous, toothless old hags down fat, chubby babes, besmeared with seal-fat and dirt. Over this platform a number of pologs were suspended, serving as different apartments, and capable altogether of containing about fifty persons after the Korak mode of sleeping. In the middle of the floor, directly under the entrance, a fire was kept burning for heating purposes, and just beyond, supported upon several large stones, was a huge copper caldron in which they prepare their meals of seal and whale meat.

That portion of the platform nearest the foot of the perforated log by which we had descended is considered the post of honor, and is always reserved for guests, when there are any; at other times the master of the house occupies it. Before taking formal possession, we took the precaution to have the old skins removed and our own bedding substituted in its stead, not liking the ominous gestures of the Koraks near us, which thoroughly satisfied us as to the presence of other creatures, with which we desired no acquaintance whatever. The Koraks are a very peculiar and distinct people, both in appearance and customs. The men are of good stature, large and robust, with fat, good-natured faces, small black eyes, prominent cheek-bones, broad noses, and heavy lips. They shave the tops of their heads, merely leaving a fringe of coarse black hair hanging over their eyes and ears, which gives them the appearance of monks. The women have the same cast of features as the men, but tattoo their faces, having lines drawn down their foreheads, noses, and chins, and their cheeks covered with an intricate scroll-work. When they do comb their hair they part it in the middle, and usually let it hang in two braids down their back, interwoven with strings of beads.

Their garments are of nicely-dressed reindeer-skins, and are worn with the fur inside, the pattern being much the same as that of the Tungusians; but no regard whatever is given to cleanliness. They eat any thing they can get, whether whale, seal, or reindeer meat, or fish, and their diet seems to agree with them, there being no scarcity of the article called fat in their composition. They are naturally bold and independent, having little regard for death, and are gen-

erally hospitably inclined, but have been known to resort to treachery when opportunity offered.

Our reception by Chekin was all that could be desired under the circumstances, and, availing ourselves of his hospitality, without farther ado we disposed ourselves as comfortably as possible to await the cessation of the poorga, and resolved to make no complaints whatever of what we should see, feel, or smell. Vassilly, our Cossack, who had accompanied us from Ghijigha, in a few moments after our arrival had tea and lunch prepared, which Chekin shared with us; and then, after lighting our pipes, we lay back to enjoy the novelty of our position, and take notes of Korak customs.

A fire was soon built under the big caldron, and several large masses of seal-meat were thrown in, shortly after which their meal was announced, and the native inmates, large and small, each armed with a large knife, assembled around wooden trays filled with the steaming meat, and commenced the onslaught.

They showed no want of appetite whatever, a matter which astonished me very much a few moments afterward, when I saw one of the younger members of the household making use of one of these same trays for an entirely different purpose. After their meal the women returned to their occupations of dressing skins and grunting their babies to sleep, while the men produced their small-bowled pipes and gathered around us, watching every movement with the greatest curiosity. The striking of a match, together with the fire that immediately ensued, elicited exclamations of the greatest surprise; but a few rings of smoke that rolled from Macrae's mouth while enjoying his pipe completely won their admiration, and they gathered from all sides to witness a repetition of the remarkable feat. Every few seconds during the afternoon the place would be darkened by the ingress or egress of some burly Korak passing through the aperture above, causing a constant flitting of light. Each one of them brought foxskins or some article which they wished to exchange for tobacco, knives, and a few other trinkets we had brought with us.

We gained the everlasting friendship of two or three of the filthy belles of the settlement by giving them some strings

cy beads, and they, in return, treated us to an exhibition of their favorite dances, which, though strange and to look at, is very difficult to describe. Stepping the middle space, they began by uttering low, peculiar sounds, that appeared to come from the stomach, accompanying each grunt with a short, quick squat, at the same time moving their bodies back and forth with an undulating motion and swinging their arms in the air. This they continued for some moments, gradually quickening their motions, altering the tones of their grunts. By degrees they became warmed to the sport, and in a few moments were jumping about, writhing, and twisting, and distorting their bodies and faces in such a manner as to be hardly recognizable as human beings. During all this time they continued uttering unearthly groans, grunts, and squeaks, that appeared to come from all parts of their bodies, with the cracking of joints thrown in for accompaniment. This performance continued until the perspiration flowed in streams from every pore, and the dancers became so hoarse that it was no longer possible for them to grunt, when, completely overcome with exhaustion and excitement, they threw themselves upon the ground to recover their composure. Upon seeing this, I was forcibly reminded of the remark of a Chinese official, who was invited, one hot day, to attend a ball at the Chinese port of Amoy to a number of our naval officers who were there temporarily. The dignitary sat with the consul and several officers upon a raised platform overlooking the hall, but his stoical countenance exhibited no sign of whatever either of pleasure or dislike. While the dancers were whirling about the hall in light summer dress, wiping the profuse perspiration from their faces, kept to a lively waltz, the consul turned to the official and asked him how he enjoyed it. "Oh, very well," he replied; "but I should think you would make your servants dance for you." So I thought of this dance. It was all very new to the lookers-on, but I would prefer being excused from participating in it.

Coel contains about three hundred inhabitants, and is situated upon a low bank overlooking Penjinsk Gulf. The main street is on the Paren River, so the inhabitants have to

depend altogether upon drift-logs for fuel and material for constructing their houses. In their polog, however, as I have already stated, they burn seal oil.

There are three classes of Koraks; the civilized or converted, whom I have already described, living in the settlements along the coast west of Ghijigha—at Yamsk, Toumane, and Niakona. They are hardly distinguishable from any of the other civilized natives. The other two classes still retain their original barbarous customs and pagan beliefs. The first of these are known as the settled Koraks, they having permanent abodes on Penjinsk Gulf, and subsist almost entirely upon the produce of the sea, like the Esquimaux. These Koraks, with the exception of a few scattering huts, are confined to four settlements—Coeil, Meekina, Shestakova, and Karmenoi. They have but few guns, and depend upon their bows and arrows, and bone-headed spears and harpoons, in the capture of whales and other large game. Seal they usually catch in very large seines made of seal thongs, and for the capture of smaller fish they use twine seines that they procure from Ghijigha.

They make use of two kinds of boats or canoes, consisting of a light frame-work of birch-wood, over which they stretch sealskins, firmly sewed together in the proper shape, and the seams closed with grease or pitch. The larger kind are, some of them, capable of carrying forty men, and are open at the top. The others are much like the Greenland "kiak," intended for one or two men, and are entirely covered over except at the circular holes in which the natives sit. They use dogs and sleds for winter transportation, but their snow-shoes are different from the ones already described. These consist of wooden bows, rounded, and raised in front, and pointed at the rear, over which a network of seal-thongs is interwoven, but are very clumsy, and not as buoyant as those used by the Yakouts and Tungusians. They are pagans, worshipping invisible gods, whom they approach through their shamans. To these spirits they offer sacrifices of their best dogs when threatened by sickness or disaster; and in traveling they usually have certain rocks or mountains that they look upon with superstitious awe, and which they never pass without making some oblation. Like nearly all savage peo-

they have a strong passion for any thing of an intoxicating nature. They will sacrifice almost any thing for strong drink; but, as it is often difficult to procure this, they manufacture for themselves a beverage from a species of poisonous toadstool, called "muck-a-moor," which the Russians use for exterminating vermin. This fungus is very highly esteemed by them, but its scarcity and consequent costliness places it beyond the reach of the poorer people. These latter, however, through a very questionable process, are always participants in the spree of those who have the means of procuring it. The liquor is prepared by simply steeping the fungus, and is drank in quite large quantities without any apparent injurious effects. In a few minutes the fortunate ones get thoroughly intoxicated, and imbibe to such an extent that they are forced to relieve themselves of the superfluity, on which occasions the poorer people stand prepared with bowls to catch the liquid, which they quaff, and in turn become intoxicated. In this manner a whole settlement will sometimes get drunk from liquor consumed by one individual. The following description of courtship and marriage among the Koraks, which I received from Vassilly the Cossack, is nothing of a novelty in that line:

When once the young beau becomes infatuated, he makes known his passion to the father of his "affinity," and expresses his desire to strive for her hand. A kind of contract is immediately entered into, by which the young man binds himself to the father as a servant for a term of years, at the expiration of which time he can have the pleasure of learning whether the daughter will have him or not. In this manner, if the father be the happy possessor of a beautiful daughter, he may have half a dozen men ready to do his bidding at one time. When the term of servitude expires, one of the larger youths is selected, and all the old women of the tribe, armed with sticks and pieces of seal-thong, are stationed in the pologs suspended around the room. The daughter then appears, thickly clad in skin garments, followed by her lover, when a race ensues around the inclosure, the contestants dodging about among the pologs. To win his bride, he must overtake her, and leave the print of his nail upon her person before she can be rescued by the old women, who,



KORAK BEAU.

during the race, impede the lover as much as possible by beating him with sticks, and tripping him by seizing his legs as he rushes by them.

The advantage is all with the girl, and if she does not wish to become the wife of her pursuer, she can avoid him without difficulty. On the contrary, if she likes him, she manages to stumble, or makes

known her wishes to the old women, who then only make a show of impeding the pursuer. Sometimes the lover is so desperately smitten that, just after being foiled, he returns to the father, and binds himself for another period of years for the privilege of making another trial.

The third class of Koraks, known as the Reindeer Koraks, are again quite different from these. They are a nomadic people, living in skin tents like the Tungusians, and own immense herds of reindeer, which they drive from place to place to procure food.

The poorga continued without cessation during the day, and also through the following one; so we had to content ourselves with the unavoidable delay, and submit calmly to the disgusting sights and smells that the place afforded. Not the least of our afflictions were



KORAK BELLE.

the merciless attacks of scores of a species of vermin that had peculiar fondness for American meat, and insatiable appetites to gratify.

Here, for the first time, I learned that the drivers were without dog-food, they having left Ghijigha with only two days' supply, expecting to procure enough fish and seal fat from the Koraks to carry them through to the town of Penina, where they could obtain a fresh supply. But the stock the Coeil Koraks was so nearly exhausted that we could not obtain more than enough to supply our teams during our stay, and we were therefore obliged to depend upon the Pekina or Shestakova natives for a supply for road use.

During our second day's sojourn at this place time hung heavily, and every few minutes some of the party would ascend to the roof, hoping to detect some signs of the storm coming.

The natives seemed to wholly disregard the wind and driving snow, having probably become inured to it, and all through the morning the small boys were out shooting at a mark with their bows and bone-headed arrows. To test their skill, I placed a number of Russian copper coins on top of a stick for them to shoot at, the ones who struck them to have the money, but their shooting was very wild.

One little incident happened, however, which well illustrated the stoical, insensible natures of these people, the development of which traits in such youths astonished us very much. In a direct line with the coins at which they were shooting, and about forty feet beyond, two girls stood, leaning against a log store-house. In shooting, one of the arrows struck a hard snow-bank, and glanced off in the direction of the girls, who, seeing it coming, had no time to get out of the way, but bowed their heads to avoid it. The next instant the shaft buried itself quivering in a soft log just over one of their heads. I could not avoid an involuntary shudder when I saw the arrow strike, but the little heathens exhibited no traces of emotion whatever, and, hardly deigning to follow the course of the arrow with their eyes, continued to shoot with the greatest unconcern.

Afterward the men gave us an exhibition of some of their sports in wrestling and running foot-races. They are a strong,

athletic race, and their feats of agility and skill would have put to shame some of our gymnasts. In wrestling, they stripped the upper portions of their bodies to the skin, regardless of wind and snow, and each grasping the other with one hand by the hair, and with the other clutching a good thick fold of flesh and fat in the side, they twisted, writhed, jerked, and tripped, until one of the contestants lay half buried in the snow. After one of these struggles, the vanquished retained in his hand a thick tuft of black hair he had jerked from his opponent's head, and several of the participants bore red finger-marks and severe scratches on their sides, from which blood flowed quite freely. One of their favorite ruses was to grasp the opponent about the neck with both hands, and, by dint of chokings and quick jerks, to force him to succumb.

Sunday, April 22d, was yet stormy, but there being indications of the storm subsiding, we pushed on. We followed the bend of the gulf, traveling sometimes on the salt ice and sometimes on the edge of the tundra, the weather varying between sharp snow-squalls and intervals of sunlight. At 7 o'clock P.M. we reached the settlement of Meekina, which is in every respect like Coeil, though containing fewer houses. Our dogs appeared to be so much exhausted from the journey that we were forced to halt for the night. These Koraks were not as hospitable as those at Coeil, and assumed an insulting, independent air. Though having plenty of dog-food, they refused to let us have any at any price, and we were obliged to borrow one night's supply from a fellow-traveler.

After shaking the snow from our feet, we hastened our departure at 4 A.M. the following morning, pursuing an easterly course over the tundra, and at 9.30 A.M. arrived at the Korak settlement of Shestakova, situated at the mouth of a small river of the same name.

It was near this place that the young Russian officer Shestakova, with his party, were surprised and massacred early in the last century. We stopped here only long enough to procure dog-food, which the natives willingly supplied us with, and, leaving the sea-coast, took a northerly course up the Shestakova River. This stream had already begun to open

many places, making it necessary for us to construct ice lges.

Just at sunset we reached the head of the river, and ascended a long, gradual divide known as the Shestakova rebet. Beyond this, for more than twenty versts, no wood could be obtained for camp purposes, and we were obliged to continue our journey until 10 o'clock P.M. The moment we passed the ridge there was a strongly perceptible change in the atmosphere. During the last hour of the journey, while picking our way through the darkness, we all suffered much from cold. Our thermometer indicated -30° Fahrenheit.

We camped for the night on a small tributary of the Ak-
at a point where enough dry sticks could be procured for our camp-fire. The snow at this place was six feet in depth, in which some previous travelers had dug a deep well, large enough for our fire and to furnish our party with cooking-places.

We gratefully availed ourselves of the hole, as a cold, disagreeable wind swept the tundra above, but, while nestled in this pit, we avoided the blasts altogether, and the light and heat of our large fire, reflected from the snow walls surrounding us, gave a cheerful and comfortable aspect to the place.

On this journey I abandoned my old custom of undressing myself nightly, and adopted that of the natives, who, upon going to bed, instead of removing any of their clothing, pile on the extra furs in their possession. Before leaving Ghiji-I had supplied myself with a *robe de nuit* and sleeping-sacks. The first consisted of an immense fur kuklanker of considerable thickness, and extending to my ankles; a heavy, spacious hood covered the head, and was bordered with a thick fringe of wolf-hair, to keep the drifting snow out of my face while sleeping. Once attired in this, and having donned my sleeping-socks, each of which was as large as a small-sized blanket, I could set Jack Frost at defiance, and all else needed for complete comfort was to throw my bearskin on the snow for a mattress. We, however, found it a very necessary precaution to remove our inside fur socks before retiring, and to replace them with fresh, dry ones. During the

day these invariably absorb more or less dampness from *Per-*piration, and, unless changed, cause the feet to freeze during the night.

We did not renew our journey until 7 A.M. in the morning, when we took a direct northerly course across the tundra for the Aklan River, ten versts distant. This stream is two hundred feet in width at this point, well wooded on the immediate banks, and flows eastwardly for about fifty versts, when it empties into the Penjina. The Penjina drains all this inland territory, of several hundred miles in extent, and flows into Penjinsk Gulf a few miles east of the settlement of Shestakova. Both streams abound in fish, and their wooded banks afford shelter to a large variety of game, including bears, wolves, foxes, sable, and hare.

Without halting, except to resuscitate one of the rear dogs that had been run over by a heavy sled dashing down the steep river bank, we pushed on through the wooded belt for about half a mile, and again emerged upon the tundra. The process of resuscitation, as practiced by these drivers, is not exactly in accordance with our civilized notions of such things. The animal, being one of the lazy class that I have previously described, was too indolent to run, and the trace by which he was attached to the seal-thong was just long enough to allow the whole weight of the sled to rest upon the creature. When once started down the declivity, it was impossible to stop the sled before reaching the bottom, and the trace-line refused to break, so that the dog's body was kept underneath the runners during the whole distance, serving as a kind of clog. Upon being dragged out, no trace of life could be detected in the animal; but a few well-directed kicks and blows, and a rough tumbling about in the snow, revived it, and, after stretching itself, it started off, apparently as well as ever. The most remarkable thing of all is that the creatures don't profit from past experiences, but are always ready to repeat the performance whenever a hill is to be descended.

CHAPTER XXV.

Tundra.—Ooscanina Mountain.—Worn-out Dogs.—Mystery Solved. Ineffectual Scolding.—A good Ruse.—Ooscanina Rivers.—Ishiginaki Mountain.—Valley of the Penjina.—A fearful Poorga.—Scattered Sleds. A Night-search.—Penjina.—Anadyrsk Sleds.—Proposed Exploration of the Myan.—Serious Obstacles.—The Start.—Slavotna River.—Laceitsa upka.—The Myan.—Mount Polpol.—A Mirage.—Strange Illusion.—Mining City.—Polpol River.—Korak Trail.—Snow-storm.—Poorga Camp.—Polog.—Hunting Wood.—Stormy Night.—Hunting Koraks.—Success.—Reindeer Koraks.—Character and Appearance.—Great Wealth. Government.—Lords and Retainers.—The Value of Reindeer.—Their Uses.—Sonkees.—Advantages of Fish as Dog-food.—Fearful Poorga.—Day-day.—Keeping Awake.—Provoking Deception.—Off again.—More Poorga.—Return River.—Seeking Shelter.—Roast-rib Camp.—The Myan. Thawing.—Day Halts.—A tender Organ.—Remedy for Snow-blindness. Orlofka River.—Abasa River.—Swans and Bear-tracks.—Game.—Sleds.—Our Speculations.—Nature of Country.—Traveling.—Prospect. Off.—Night-thaw.—Laluma.—Exhaustion.—Overtaken.—Last Fish.—Myan River.—Telegraph Bluff.—Anadyr Valley.—Crepast.—Close of Journey.

MERGING from the Aklan, before us lay a vast level plain now, varying from fifteen to twenty-five miles in width, bounded on either side by low ranges of white hills, that finally came together in the distance far to the north. On these, in places, black masses of rock jutted from the snow, but not a trace of vegetation was to be seen. One cone-like mountain on the right was crowned with a large, circular mass of rock, with perpendicular sides and level top, above which loomed occasional turrets and fantastic projections. To this we gave the name of Castle Mountain. The plain was smooth, and presented a hard, polished surface, on which the sun reflected with such brilliancy that not only was our eyesight endangered, but we had to resort to visor masks, with which we were provided, to prevent our faces from blistering. Our course lay directly across this twelve hours' travel, when we found ourselves at the foot of a low divide, called Ooscanina (rabbit) Mountain by the natives. Here we camped, on a small, lightly-wooded tribu-

tary of the Aklan. We had crossed two similar streams during the day.

Many of our dogs showed signs of giving out during this day's journey, and seemed to have such difficulty in drawing the sleds that we decided to have an investigation. The mystery was soon solved, for, upon removing our own light baggage, we found that the drivers had packed underneath several hundred pounds of stores for their own use unbeknown to us. For the transportation of this we were expected to pay. But it was too late to remedy the matter now, and we had to content ourselves with venting our indignation in what must have been very poor Russian, for the scamps could hardly conceal their smiles, in spite of their fear lest we should tumble their loads off on the snow and leave them behind.

During the latter part of the journey the natives adopted a ruse to encourage the dogs which must have been very aggravating, but was, nevertheless, quite effectual. The best team was put in advance, followed by the others in the order of their efficiency, and then a dried fish was suspended over the back of each narta, the scent of which, reaching the hungry teams following, caused them to redouble their exertions, with the hope of catching up to it.

April 25th.—We had but one day's dog-food left, and still upward of one hundred versts intervened between us and the town of Penjina, the nearest settlement. At 4 A.M. we were ascending a divide called Ooscanina Khrebet. Beyond this ridge we struck another tundra similar to the one of the day before, drained by three small streams called First, Second, and Third Ooscanina Rivers, which empty into the Penjina above the mouth of the Aklan. Three dark threads winding and twisting about on the vast sheet of snow before us, as viewed from Ooscanina Khrebet, indicated their courses. On the farther side, Ishiginski Mount, a small conical peak, but prominent landmark, denoted our course. For this we started in a northeast direction, and at 4 P.M. reached another low divide, extending westwardly from the base of the peak. From this ridge we looked down upon another plain, intersected by two or three scantily-wooded streama. Far to the other side was the Penjina River, extending along the base

ow range of bluffs, beneath which the town of Penjina
ted.

many dreary versts had to be traversed before we
reach the place, and we immediately dipped down into
wlands in order to lose no time. This plain was very
2, and cut up by small gulches, which, with great patch-
laurel brush that obstructed our way, made traveling
ratively slow, and night, dark and cold, with threaten-
lications of a poorga, settled down upon us before we
accomplished half the distance. About twenty versts
stervened, and we cheered on our dogs to find shelter
the storm should break upon us. In half an hour more
was flying in clouds, driven by furious blasts of cold
directly in our faces. My compass was of little assist-
not knowing in which direction to look for the town,
e natives, having become confused, appeared to know
le of the place as we did.

a short time the nartas became separated from each
in the storm and darkness. We could not make our
heard above the howling of the wind, consequently
not reassemble, and were compelled, singly or in pairs,
p our northerly course as best we could, many of the
eing guided only by the wind, that blew from the di-
they wished to take. Our chief hope was to find shel-
along the trees on the banks of the river. After several
ours, two of our sleds that had kept together struck
ream, whether above or below the settlement we could
ll. We would have camped, but had no food for our
and Vassilly's narta, upon which our provision was
l, was nowhere to be found. At a hazard, we decided
up stream in search of the village, and were fortunate
ing up, at intervals, four or five more of the scattered
After a couple of hours' groping and stumbling along
ver bed, we struck a trail, and at 2 o'clock in the morn-
tered Penjina. Some of the sleds did not get in until
fter daylight.

jina is a small settlement after the style of Tausk and
s, though most of the houses are rather inferior. It
not contain more than fifty inhabitants, consisting of
eks and Russianized natives of the Chuansee and Uka-

gari tribes principally, though the blood of all of them is more or less mixed. Upon our arrival we found several Anadyrsk sleds loaded with provision, that had preceded us several days from Ghijigha.

From this place Anadyrsk is not more than four long days' journey distant by a direct route, but it was our intention to strike eastward to the Myan River, a large tributary of the Anadyr, flowing north, and to explore it to its mouth, with a view of ascertaining whether it would furnish a suitable route for the line, and if it afforded proper timber for poles. Kennan, in his northward journey, had undertaken the same route from Penjina, but, after proceeding half way down the stream, was obliged to abandon the project from want of dog-food, and to take a direct route for Anadyrsk.

The poorga continued without cessation during the 26th and 27th, raging with great fury, and causing us more than once to congratulate ourselves on having gotten off as well as we did. While here we met with a very serious obstacle to the realization of our plans, which well-nigh upset them altogether. The proposed exploration was to extend through a difficult and almost unknown region even to the natives, and might consume many long days. We would, in all probability, encounter deep snow, and, having no roads nor even guides except for a small portion of the way, our progress would necessarily be slow.

To succeed in such an undertaking, good fresh dogs and an abundant supply of dog-food were very essential. Upon inquiry, I found that only one team could be obtained in Penjina, and the supply of dried fish was so nearly exhausted that not more than one hundred and fifty fish could be procured—enough to sustain three teams only five days. To start out singly with such a limited supply of food would be madness, and I was well-nigh forced, though very reluctantly, to abandon the project altogether for the present. However, rather than do this, we resolved to make an effort to reach the wandering Koraks, who live somewhere to the eastward of the Myan, and then, should we succeed in procuring deer-meat sufficient to sustain our dogs for a few days, we would continue the exploration.

We selected enough of the best dogs from our train to

e two tolerable teams, which, with the fresh one from ina, would be all that were required. Then, having cut n our supplies for road use, and our personal baggage to smallest possible weight, we forwarded the remainder on other sleds for Anadyrsk by the direct route, and took departure for the Koraks on the morning of the 28th of il. Our party consisted of Macrae and myself, with our ers and the Cossack Vassilly, who accompanied us as c and commissary.

rom Penjina we took a course a little south of east, over urren, rolling country, for about twenty versts, when we e to the Slavotna River, a small, scantily-wooded stream, has its rise in a range of hills which separates it and its utaries from the Myan River, about forty versts north of re we were, and then flows south into the Penjina.

ast of this stream we passed a low divide at a point near ominent sugar-loaf peak known as "Laceitsa Soapka," or Peak. From this point we had a magnificent view of valley of the Myan, extending east and west about fifty ts, and visible in a northerly direction for nearly double distance. It lay spread out before us in a vast sheet of r, unbroken except by two winding lines of black specks, oting the courses of streams. At the confluence of these, her to the north, the Myan commences.

ut the most prominent feature of the landscape was a rag- conical peak, about five thousand feet in height, that ed itself abruptly from a range of white hills that bound- he valley on the east. This was Mount Polpol, one of the est peaks in this part of the country. Beyond this moun- we hoped to find the Koraks. We continued our course ss this valley, and, after proceeding ten versts, reached first of the streams, where we camped for the night. The morning was quite cold, and the atmosphere had a pe- ar glassy appearance.

re resumed our journey at 3.30 o'clock A.M., steering di- ly for Polpol Mountain. The peak appeared as if seen ough a dim glass; but, as I was watching it closely, trying etect the cause, I was almost dumbfounded at seeing it me suddenly so very distinct that it appeared to have ap- ched ten miles nearer our position. The next instant

there appeared to be an upheaval of earth and snow on the summit rising before our eyes, and before we could express an exclamation, a tall, regular tower, at least five hundred feet in height, stood perched upon the highest peak. While we were watching this, the tower gradually lowered itself to half its original size, when, as if by magic, two wings suddenly fastened themselves to its sides, and I would hardly have been surprised at seeing the whole thing soar away. The wings gradually shaped themselves into square projections, and we found ourselves confronted by a perfect representation of an old style meeting-house. Again, as if by magic, the tower disappeared, but castellated turrets immediately sprang up, and wings, bastions, and angles attached themselves to the sides of the structure in such a manner as to totally change its aspect. I felt as if suddenly transported to the base of some castle-crowned crag in the Old World, and was almost expecting to see the sentry making his rounds, when the whole thing vanished, and the mountain had reassumed its natural shape. While regarding it and musing on the causes, my attention was suddenly attracted by a great commotion among the hills farther north. All along the ridge towers and palisades were springing up and as suddenly disappearing. Now and then one taller than its companions would rear itself, and noiselessly glide along for a mile or two, when, as if shaken to pieces by an earthquake, it tumbled into an irregular mass of debris and ruin, but immediately reassumed some regular shape. At one time the ridge represented a city, with its flat and gable roofs, high and low chimneys, shot towers, church steeples, and other prominent objects, and remained perfectly motionless for some moments, when, as if by general consent, the different edifices began to move about and change places, rising and settling, now disappearing altogether, and now suddenly reappearing somewhere else. This illusion continued, the different objects constantly changing and dancing about, until suddenly we saw nothing before us but the natural outline of the hill, and detected ourselves rubbing our eyes, and endeavoring to assure ourselves that we were not dreaming. But no, it was not a dream; for, while we were looking, old Polpol was beginning to writhe as if in mortal agony.

ay down the mountain its sides began to contract, the summit began to expand, the latter widening out like the former pinching up slowly, as if two great incyclopean beings had a rope around it, and were pulling on either side, to reduce its dimensions. At length the enormous mass of earth was almost cut in two, and the huge portion appeared about to topple and fall with a thunder-crash, when the cord loosened, and there stood old Pol-e Almighty had made it. This mirage was the first I had seen in the country, and greatly relieved the tedium of the morning's journey over the tundra.

Proceeding twenty versts farther we struck the other side, seen from the hill the day before, which is known as the Polpol River. This we ascended, taking a southeastward path and passing around the base of Polpol Peak on the west side. Forty versts beyond the point at which we reached the Polpol River we were much encouraged at finding a track leading in a northerly direction along a barren hill. This we followed, hoping to reach their destination before dark, but night overtook us before we had reached ten versts, and was ushered in by a heavy, snow-storm. We had no alternative but to camp, there was not a twig within sight with which to start a fire. Fortunately, one of our drivers had an old sled-pole, which he loaned us for shelter, and, by joining two of the sleds together, and using the poles, we managed to erect a frame-work to suspend it to. He had not even brought a tent with us. The third sled was unloaded, and we started Vassilly off with it to the high hills, to try and find enough dry sticks to prepare a fire with. In half an hour's time he returned, having succeeded in procuring about ten pounds of wood.

For supper we crawled into our forlorn shelter, which was large enough to accommodate three of us, and the men, after putting on their sleeping kuklankers, and throwing large hoods over their heads, drew their arms out of their sleeves, hugging them up to their bodies for warmth, and stretched themselves up on the sleds in a sitting posture away the night.

When the storm had nearly abated, and Vassilly was

out bright and early trying to find more sticks. Thinking it useless to go in pursuit of the Koraks with our heavy sleds, we unloaded them, and started off our drivers to follow the trail, and endeavor to procure some deer-meat. The day was cloudy and threatening, and at night the storm broke upon us with increased fury. By nine o'clock our drivers had not returned, and we were beginning to experience some anxiety for their safety, but half an hour afterward we heard our dogs barking in the distance, and shortly afterward they drove up within the glare of our camp-fire, each sled burdened with two fine, large, freshly-killed reindeer. It was a joyous sight to us. A minute afterward seven fine-looking Koraks came up, armed with long spears, and dressed in clean suits of reindeer-fur, which were perfectly white with snow.

These last had come with their deer and sleds, but were obliged to keep in the rear on account of the dogs. They had picketed their deer on a neighboring hill. The storm was raging fearfully in the mean while, and our little polog was jammed to the utmost by our guests, who were anxious to see and watch those strange beings "the Americans," of whom our drivers had told them. After stuffing them with tea, and presenting each with a handful of tobacco and a couple of needles, they left at eleven o'clock in the storm, apparently highly pleased with the result of their visit. Needles they prize very highly, ours being so far superior to the bone awls they generally use in sewing. But, in spite of the slow and tedious process of making clothing with their rude implements, their stitches are fine and even, and never give way. Sinews of the reindeer supply them with thread. We found these people far superior to the Gulf or settled Koraks. Owing to their simple, nomadic life, and non-intercourse with more civilized beings, they are ignorant of all the tricks and deceptions of their settled brethren, and are characterized by their generous, unsuspecting natures.

Their language and religion are the same as the others, but their mode of living is entirely different. Some of them are fabulously rich in reindeer. One old fellow of whom I heard possessed no less than fifteen thousand of these animals. They have no particular form of government, and are controlled altogether by the fundamental laws of nature and



justice. Each one is his own governor, and, in case of malfeasance, is only answerable to the person injured, who has the choice of selecting his own course of action. They are firm believers in the laws of retaliation. If one man commits murder, he is very apt to be murdered in turn by the friends of the deceased. Sometimes the matter rests here, but often family feuds are continued through generations. They are very jealous of their own rights, and are careful not to infringe upon the rights of others.

I said there is no established form of government, but I will except a certain influence wielded by the wealthy over those who are dependent upon them for food and clothing. These latter, having no deer of their own, join the household of some rich man, and, in return for his food and clothing, assist in guarding and taking care of the herds of their lord. Where one man owns many deer, he keeps them separated in lots of from one thousand to twelve hundred, scattered over the country, so that they can procure abundant food. The reindeer is all in all to these people. They furnish them with food, raiment, transportation, and shelter. Their sinews supply them with thread, as above stated, and their bones and antlers supply material for the manufacture of numerous little implements necessary to their mode of living, and even with weapons, when they are unable to procure steel or iron through trade.

The antlers are also used in the manufacture of some of their light sleds or "sonkees." These sleds are very pretty and graceful little structures, and some of them are fine specimens of workmanship. The long, light runners, raised in a beautiful curve at the prow, are usually made of birch. Over these are from six to twelve arches, uniting the two, and made sometimes of wood, but frequently from reindeer antlers carefully smoothed and polished. Resting on the arches is the light body, with rounded back and curved arms like a chair, held together by rounds, all carefully made and polished, and the whole neatly lashed together at the joints by long, narrow strips of black whalebone.

Two deer are used with each sled, harnessed in the same manner as those used on the Ajan post-road; and the rider carries a light pointed staff, with which to goad them on.

They have another sled, large, heavy, and comparatively clumsy, on which they transport their luggage. As they journey slowly while traveling with their herds and household, these answer every purpose.

Each of the deer the Koraks brought us were ready dressed, and would weigh from eighty to one hundred pounds. Though most acceptable under the circumstances, we could not but wish that we had been able to procure dried fish for our dogs instead. However, our men had also procured three days' supply of fish and seal-fat, which, with the deer, would support our teams five days and a part of the sixth. The great advantage of fish for road use is its lightness and convenience for packing. We estimated that twenty pounds of dry fish would go as far as a deer weighing seventy pounds.

It was a fearful night, and the wind howled and swept over our unprotected position with such fury that we would hardly have been surprised at waking up and finding ourselves at the foot of the mountain. All night long the snow drifted through innumerable rents and holes in our polog, and upon awaking we found a coating two inches in depth all over us. It was the 1st of May, and such a one I had never dreamed of seeing. Macrae and I tried to picture to ourselves joyous parties robed in light summer costumes, decorated with gay ribbons, and wearing wreaths of freshly-plucked flowers, picking their way over green meadows and through shady groves to the rendezvous at the May-pole. We tried to conceive of the soft, balmy atmosphere, clear blue heavens, glowing sunlight, and gentle breezes laden with the fragrance of flowers with which all the rest of the world was blessed at that moment, but could not think it possible. Blast followed blast in rapid succession, wailing, shrieking, and roaring as if bent upon the destruction of every thing living that came in its way. I raised myself partly from my bearskin, and, putting my eye to the polog, peeped out; but what a sight! Though late in the day, it was quite dark, but sufficiently light for me to distinguish a chaotic mass of whirling snow rushing and tearing by, obscuring every thing in its madness. Only one object was visible, but that only at intervals, though only six feet distant. There, perched upon a sled, silent and motionless as if in death, was the fur-clad figure of one of our drivers,

inst whom, on the windward side, a large snow-drift had accumulated. I gave a shudder, and dropped back on my

My watch had run down during the night, and we did not tell the time of day. Nevertheless, Vassilly crawled and endeavored to make a fire, but, utterly failing in this, crawled back into the polog with a dried fish, which we divided among us.

We could not tell how long we had slept, nor could we think of moving under the circumstances. There were no signs of the poorga abating for hours. Macrae and I amused ourselves smoking and chatting as long as we could, for, in the middle of our night's sleep, we both experienced strong feelings of drowsiness, and it was with the greatest difficulty we could keep our eyes open. But we knew that if we gave way that we would pass a sleepless night, and, by mutual consent, whenever one of us showed signs of napping, the other checked him, and tried to enter into conversation with him.

I continued this for several hours, when, much to our gratification, the wind lulled, and one of our drivers came and reported that the storm had subsided. We had eaten nothing except the small piece of dried fish since the previous night, immediately built a fire to have supper before retiring. The sun was just setting, though it must have been nearly 9 o'clock at night, the days were so long.

After supper we started back for the polog, when one of the drivers asked us if we did not wish to start on. To this I replied that "we would not go until morning." After looking at us curiously for a moment, he said, "But it is morning." We thought him crazy; but the others siding with him, we referred to the compass, and, from the bearing of the sun, found that it was rising instead of setting. We had been keeping ourselves awake all night long. The days were so long at this time that the twilight continued all through the night. We had perceived that it was quite dark, but attributed it to the storm.

Availing ourselves of the lull, we immediately renewed our journey, taking a northerly course by the compass. Though perfectly ignorant of the country, and without guides, we felt confident, sooner or later, of striking either the Myan or one of its tributaries. Shortly after starting the storm revived,

but this time the wind came from the south and blew against our backs, so that we experienced no great inconvenience from it until in the afternoon, when we struck a tributary of the Myan, and followed its course in a northwest direction.

For two hours we followed the stream, when the wind became so strong that we were obliged to take shelter behind a large thicket of alder-brush. A glorious fire was soon roaring, and the tea-kettle lent its merry song to cheer the surroundings, after which Vassilly proceeded to prepare dinner. Suddenly Macrae threw down his pipe, and, drawing his sheath-knife, started for the sleds.

"I will be cook to-night," he said. "We will have a regular Rocky Mountain feast, and if you don't say it is good, I pledge myself never again to don the apron or wield a toasting-fork."

"Mac" had crossed the Rocky Mountains in early days, and had a peculiar appreciation of good things, so I knew I would not be disappointed. In a moment he returned with the whole side of a deer, coated with rich fat, and, after cutting a pronged stick and spitting the meat, proceeded to roast it. Soon the rich juice began to stream out and drop in the hot ashes, but a tea-cup judiciously placed caught most of it, which was, from time to time, poured back upon the smoking ribs. The aroma alone would almost appease one's appetite. Finally, after the long and careful process was ended, dinner was announced in a triumphant tone, and we began the assault. Though "sans" salt, "sans" pepper, "sans" plates, and, in fact, "sans every thing" except the roast and our sheath-knives, I think I never before enjoyed a more delicious morsel. Its effect was astonishing; neither wind nor snow troubled us any longer, and our own feelings were so much elated that we held a mass meeting of two on the spot, and unanimously decided to call the place "Roast-rib Camp."

Toward night we continued our journey, but, after proceeding five versts, were again forced to take shelter. At half past 3 o'clock the next morning we were again on the road, having a clear sky and bright sun to cheer us on. At 10 o'clock we arrived at the junction of the river* with the

* We afterward learned that Kennan had named this stream the "Return River" on his journey northward.

Myan, and then took a northerly course down that stream through a narrow valley bordered by barren hills. The immediate banks of the stream were wooded with poplar, willow, and laurel, but no larch was visible.

Up to this time we had found the snow hard and crusted, and the traveling excellent, but this day at noon the sun was so hot as to melt the crust, and our sleds sank so deep in the snow that we were obliged to halt for three hours for the crust to re-form. One of our drivers was nearly blinded by the glare, and we all suffered considerably. My nose, of which I had not taken proper care, became blistered by exposure, and not six hours afterward, when the weather became cold again, it had the misfortune to freeze. The effect on that organ of these two opposite agents can be more readily imagined than described. These natives use tobacco-juice as a remedy for snow-blindness, which, though exceedingly severe, is very effectual.

The next morning we started early, continuing all day down the Myan with firm snow underneath. At sunset we came to the mouth of the Orlofka River, a stream flowing from the west. At this point Kennan, in his exploration, left the Myan, and took a direct route for Anadyrsk, his dog-food having given out.

A few versts farther we came to a wooded country, where we saw scattering trees of birch, spruce, and larch. The latter were tall, straight, and durable, and are admirably suited to telegraph purposes. Here the snow was deep and soft, having been sheltered from the winter winds, and we were obliged to resort to our snow-shoes to break a road. Afterward we crossed to the eastern side of the river, and found open tundra, upon which we traveled until 10 o'clock P.M., and camped. During the day we had seen bear-tracks, and a few geese and swans flew over our heads going north, all of which indicated the proximity of spring.

East of our camp was a broad, fine valley, extending in a southeast direction. It was so large that we knew it must be drained by a river of no mean size, and therefore concluded that it was the Olgan, a large stream Macrae and Arnold had descended while approaching Anadyrsk during their long journey with the Tchutchus. We now congrat-

ulated ourselves upon having a known country ahead of us.

After proceeding eight versts from camp, on the morning of May 5th we struck a long belt of thick woods, which we were forced to penetrate, though it was a difficult task, the snow being deep and soft, and in places we had to cut a way for our sleds through the underbrush. Suddenly we emerged upon a large stream about three hundred feet wide, which Macrae at once declared not to be the Olgan. It was larger than the branch we had been descending, so we at once decided that this was the main Myan, and, to distinguish the two, called the other the Abasa River, by which name it was afterward recognized. In descending to the ice we started up a pair of swans of very large size, and also found fresh bear-tracks near a small patch of open water, where Bruin had been watching for an opportunity to catch his morning meal. Rabbits and ptarmigan were also very abundant; we saw large numbers of both while passing through the woods.

But what astonished us most was a fresh trail made by two dog-sleds going up the Myan in a southeast direction. We at first thought that some of the Anadyrsk people had gone in this direction in search of Koraks to procure deer-meat, but our drivers assured us that they never came to this part of the country, as they can obtain deer much nearer in other directions. Our next thought was that Major Abasa had arrived at Anadyrsk, and, being anxious on account of our long absence, had sent these sleds out in search of us. But the fact of their ascending this stream instead of the other induced us to believe that this could not be the case. Finally, we decided that the major himself, not being able to delay his departure from Anadyrsk longer on account of warm weather, had chosen this route for his return journey, in the hope of meeting us, and that he had ascended the wrong branch. This appeared to us most probable, and we would have turned back with the hope of overtaking him, but knew it would be useless with our exhausted dogs; besides, there was no time to be lost, as we had barely food enough to enable us to reach our destination. Following this trail as a guide, we renewed our journey along the bed of the river. Both banks were thickly wooded with larch and spruce, and

we shelter to quantities of game. In one place a fox had the audacity to seat himself on the river bank, in plain view, and bark at our dogs as they were passing by. He had evidently never been disturbed by hunters.

At 1.30 P.M. we halted two hours, to give our dogs rest and to escape the heat of the day, but at 3 o'clock we were obliged to renew our journey, there being no prospect of its being cold. The snow was deep and water-soaked, and traveling very difficult. We all took to snow-shoes to beat trail and lighten the sleds, but even then our dogs could go no faster than a walk. At this rate our dog-food would run out long before we could procure other. Fortunately, at that time the sun did not set until 9 o'clock, and we could go well enough to travel until 10 o'clock, so we endeavored to make up for slow progress by long hours.

This day, though fifteen hours on the road, we did not accomplish more than thirty versts. The river was beginning to open in many places, and every half hour during the day we encountered fresh bear-tracks, but did not catch sight of any of the animals. An eagle also made its appearance, and one of those horrible little pests, a musquito, buzzed around our head for a few moments. We camped at 9.30 P.M. on a small island, Sunday, May 6th.

It thawed all night, for the first time since winter set in, and we found it impossible to travel on the river, so left the trail we had been following, and traveled upon the left bank of the stream, through a fine forest of larch. At 1 o'clock P.M. we reached a point where a bold cliff terminates abruptly on the river, and stopped to rest the dogs and cook dinner. After dinner I climbed the cliff to take bearings of different prominent landmarks, and to obtain a better idea of the country we were traversing. The valley of the Myan at this point is about forty versts wide, and the whole surface seemed to be a continued forest of larch-trees.

My eyes had become so accustomed of late to the barren tundras we had been traversing, that this sight was a most refreshing one, and, in a telegraphic point of view, perfectly novel. Mr. Kennan had found the banks of the Anadyr river perfectly barren of trees, but here were poles enough to supply a line from Ghijgha to Behring's Sea, and to keep

it in repair for any length of time. From soundings I had made, from time to time, through holes in the ice, we knew there was sufficient water for rafting purposes. We named this place "Prospect Bluff." The course of the river was due north magnetic.

At 2 P.M. we resumed our journey on snow-shoes over a rolling, lightly-wooded country on the west bank of the river. Just as we were crossing a low elevation, Macrae cried out, in a joyous tone, "Laluma! Laluma!" pointing to the north-east. Looking in the direction, I saw a high conical peak, barely perceptible in the distance, which Macrae recognized as an old friend. For many days during their Tchuctchu journeys, this peak, which is about six thousand feet high, loomed above him. Its appearance at this time was very opportune, as it enabled us to discover our whereabouts. We camped at dark, having made but thirty-five versts during the day.

We had now but one night's food left for our dogs, but hoped in two more days to reach our destination. We had fed the deer-meat to the dogs as soon as possible, in order to lighten the sleds, and now our own stock of food was getting very low. In addition to this, the late exceedingly difficult traveling in wet, heavy snow, most of the time on snow-shoes, together with the lack of sleep (our allowance being usually about three hours out of the twenty-four), and our eyes weakened from snow-blindness, made us all long for the goal. We were all so badly tanned as to be hardly recognizable as white men.

The next morning at 3 o'clock, just as we were about to start from camp, we heard a noise back of us, and soon saw three empty sleds approaching. They proved to be the ones whose trail we had been following, and the drivers informed us that they had been sent in search of us from Anadyrsk by the major, who had arrived at that place three days before their departure. We had passed each other near the mouth of the Abasa River. They had been traveling day and night to overtake us after discovering our trail. We then delayed our departure two hours, to give them and their dogs an opportunity to rest. Their animals having eaten nothing for twenty-four hours, we also gave them our last fish.

We attached these fresh teams to our own nartas, and sent old dogs ahead with empty sleds to break a road, but an overtaker overtook them. Ten versts from camp we reached a point where another bold bluff terminates on the river, which here were very narrow, and a verst below we struck the mouth of the Olgan, seventy versts below where we expected to find

The bluff we called "Telegraph Bluff," it being the most suitable point we had found for stretching a wire across the river. Here was an old deserted hut, and the immediate neighborhood was densely wooded with fine larch; but before the mouth of the Olgan the timber ended. From a neighboring elevation we could trace the river for miles to the north. Its course was exceedingly winding.

Being out of food, from Telegraph Bluff we struck immediately across the range of hills that border the valley of the river on the west, and took a northwesterly course over a large barren tundra toward the settlement of Crepast, which, with two or three other villages, compose Anadyrsk. This tundra is in the valley of the Anadyr River. From the range we could see the river itself winding about in the dim distance to the north and west. Beyond the river, the tundra continued until it faded from sight on the distant horizon. Our journey across the tundra was long and tedious, the plain being uneven, and covered with deep snow, and dotted with patches of laurel brush.

At 3 o'clock on the morning of the 8th of May, just as the sun was rising, we entered Crepast, completely exhausted, having been twenty-two hours on the road since leaving Upernivik. I only waited long enough to get a fresh team, and then rode on for Markova, fifteen versts farther, where the mail was stopping, leaving Macrae and Vassilly to get some rest and sleep, and to come on at their leisure.

Our journey had been a very severe one, but our discoveries had far exceeded our expectations, and pointed to the Yenisey and Abasa Rivers as the natural course of the line.

CHAPTER XXVI.

Crepast.—Early History of Anadyrsk.—Deshnew.—Simeon Motora.—Chuansees and Ukagirs.—Expeditions against the Tchutchus.—Pawlutaki.—Native Legends.—Present Inhabitants.—Markova.—Programme of Work.—Instructions of the Ispravnik.—Koschevin.—Departure of Major Abasi.—Newfoundland Dog "Cook."—His Siberian Experiences.—Spring Supplies.—Expeditions to purchase Deer.—Timber Belt.—Grouse and Grouse-traps.—Our opportune Arrival.—Upper Anadyr.—Protoks and Islands.—Myan and Vaccarana Protoks.—Purchasing Huts.—Vetkas.—Esquimaux Pup "Nik."—Geese and Swans.—Carbasses.—Native Summer Costume.—Cornelius.—Return of Meat-seekers.—Off for the Myan.—Instructions to Koschevin.—Dangerous Ice-traveling.—Building Station.—Discouraging News.—Goose-hunting.—Arrival of Priest.—Tolstekhin's Sufferings.—Fates against us.—Cutting Poles.—Break-up of the Myan.—Departure for Markova.—Water-fowl.—Perpetual Day.—Midnight Sunset.—Thunder.—Contrast.—Regularity of Nature.—Break-up of the Anadyr.—Grandeur.—Relic of Paganism.—Flood.—Starvation.—Dog eat Dog.—Clubbing Rabbits.—Constructing Rafts.—Afloat.

CREPAST is situated on the south bank of the Anadyr River, upon a bank about thirty feet above the level of the river. It contains about a dozen inferior log houses and "umbars," or store-rooms, the latter erected on posts about six feet above the ground. The name "Crepast" is Russian, and means "fort," this being the location of the original Russian settlement on the Anadyr, made by one Deshnew and two hundred and ten followers, who ascended the Anadyr in the year 1649, and built a small stockaded fort here.

Deshnew had started the previous year with three vessels from Colema, on the Arctic, to sail around the eastern extremity of Asia, and in October of the same year, two of his vessels having been lost, his own was driven ashore near the mouth of the Anadyr, where he wintered, and, as already stated, ascended the river the following summer. While ascending the river, he met a tribe called "Anauli," a branch of the Tchutchus, whom he endeavored to force to pay tribute, but they resisted, and, in an engagement that followed, were nearly all killed.

In 1650, a Cossack, named Simeon Motora, effected the first overland journey from Colema to Crepast, after which time communication was kept up, and a garrison regularly established. By degrees, a number of the inhabitants from Colema settled here, and were re-enforced, from time to time, by members of the Chuansee and Ukagir tribes, who, having become impoverished by the loss of their deer through disease or warfare with the Tchuctchu, were obliged to settle down and subsist upon fish. At length the settlements of Markova and Pokorukna sprang up also on the Anadyr, the one fifteen and the other thirty-five versts above Crepast. The three combined are called Anadyrsk, though at the present day Markova takes the lead of the others.

Very little is known of the early history of this section that is perfectly reliable. The inhabitants have accounts of battles with the Tchuctchus that have been handed down from generation to generation, and exaggerated with each repetition, until they have become now enormous affairs.

From "Müller" we gather that, in the year 1710, three Cossacks, who had been at Anadyrsk, reported to the "Waywode Dorosei Trauernicht" at Yakoutsk that, in the year 1701, some of the Ukagirs, who were tributary to the Russians, complained to the commander at Anadyrsk that they were often attacked by the Tchuctchus, and requested that some Russians might be sent to assist them in subduing their enemies. A party of twenty-four Russians and one hundred and ten Ukagirs proceeded to the sea-coast, and, finding thirteen habitations of Tchuctchu, called on them to surrender and to pay tribute. Upon their refusing, an engagement ensued, in which ten Tchuctchus were killed, and several men, together with the women and children, were taken prisoners. The men, rather than be captives, killed each other. Some escaped, however, and succeeded in raising a force of three hundred men at "Tchucotskoi Noss," who opposed the Russians in an engagement, and lost near two hundred slain. The next day three thousand Tchuctchus attacked the Russians, the fight lasting all day, and lost large numbers in slain. The Russians and Ukagirs had only ten wounded. The Tchuctchus were armed with bows, slings, and spears. The Tchuctchus then surrounded their enemies, and kept them belea-

guered for five days, at the end of which time they succeeded in making their escape, and returned in safety to Anadyrk.

Twenty-nine years later, in 1730, Captain Pawlutski arrived at Crepast, and the following year led an expedition, comprising two hundred and fifteen Russians, one hundred and sixty Koraks, and sixty Ukagirs, against the Tchutchus. They struck north to the Arctic coast, which they reached after two months' travel at the rate of ten versts a day. They then proceeded eastward along the coast for two weeks, and, on the 7th of June, met a large band of Tchutchus, who refused obedience, and were defeated, with what loss it is not stated. After eight days' rest, they pushed on eastward for about two weeks, and on the 30th of June defeated another band. From this point, after resting three days, they advanced to "Tchucotskoi Noss," which they had to cross to reach Anadyr Gulf. At this place they defeated and killed a large number of Tchutchus, but could not subjugate them.

Among the spoils were found several articles that were taken from Affanassa Shestakova during the previous year, when he was slain, and his party defeated on Penjinsk Gulf. The whole loss of the Russians and their allies in this expedition was three Russians, one Ukagir, and five Koraks killed. They returned to Crepast October 21st.

In addition to these accounts, the natives told me that, a good many years ago (probably since Muller's time), the Tchutchus advanced on Crepast in very large numbers, and put the Russians to flight, driving them to a hill two days' journey distant, on the direct route to Penjina, called "Ruaki Khrebet." Here the Tchutchus again attacked them, killing a great many, and thoroughly defeating the remainder. This, if true, all occurred earlier than the recollection of any of the natives I saw, and there were some old men among them. It is certain there has been no garrison at Crepast for a great many years, nor are there any traces of the old fort to be seen at the present time.

The present inhabitants are mostly descendants from those early pioneers, and, though they class themselves under the different heads of Chuansces, Ukagirs, Lamutkas, and Russians, they have all for so long a time adopted the Russian language that they have forgotten their own, and it is im-

ble to distinguish the members of the different tribes each other.

Markova was one of the least interesting, unattractive village I had seen, and contained not more than half a dozen log houses, together with a small church; but, on the



VIEW IN MARKOVA.

ing of the 8th of May, when I drove into town, I was so roughly worn out that any place would have been acceptable.

We drove up to the house of an old Chuansee named Ram, where Messrs. Dodd (Kennan's companion), and Robert, Harder, and Smith, of Macrae's party, were stopping. Being early in the morning, I found them all asleep.

As soon as I aroused them, and had made inquiries concerning the major and ispravnik, who were in another house, I threw myself down on a bed to sleep, but, from utter exhaustion, was unable to do so. Owing to the lateness of the day, little time was to be lost, therefore the major and ispravnik decided to start for Ghijgha the next day.

It was my intention to proceed to the mouth of the Olgan River, with native laborers, as soon as the necessary arrangements could be made, for the purpose of cutting poles straight down the Myan and Anadyr rivers with the spring tides, for distribution along the Anadyr, that stream being wholly without timber. By so doing, should the Company's vessels arrive at the mouth of the river in good season, we could immediately commence the construction of the line;

otherwise we might be delayed another year, as the summers are very short, and nothing could be done on that portion of the line until poles had been rafted.

Before his departure, the ispravnik assembled all the inhabitants, with their different starastas, and instructed the latter to supply us with all the assistance we should require, whether of men for labor, or dogs for transportation during winter, and also placed, subject to my orders, Koschevin, a Cossack sergeant, who had great influence and authority over the natives, together with half a dozen other Cossacks. Invested with these powers, and with near fifty able-bodied men to call upon, we entertained strong hopes of being able to accomplish a good deal of labor by summer.

At this season of the year, it is better to travel nights, to avoid the heat of day; so on the 9th of May, late in the afternoon, the major and ispravnik, with Messrs. Dodd and Robinson, and the Newfoundland dog "Cook," took their leave; the latter had a sled to himself, like the others of the party, his feet having become very sore from the effects of the journey up the Anadyr with Kennan.

Poor "Cook!" his lot had been a hard one, and many a battle he had to fight to convince these dogs that he was as good as they. All the way up the Anadyr he had been fastened behind one of the sleds, and all the other dogs, whenever an opportunity presented itself, whether through jealousy of Cook's size, or supposing him to be some distant relative of Bruin, used to attack him and give him pretty harsh treatment. Upon his arrival at Markova, he had to fight every dog in the place, either singly or in troops, and it was not until he had killed one of them, and badly injured several others, that they began to respect him. Upon his arrival at Ghijgha and the intervening towns he undoubtedly had to go through it all again. Before his departure from Markova he had become thoroughly Siberianized; he would submit as knowingly as any of the others to the harness, and always pulled his share. His special task was to haul wood and casks of water from the town well—a hole in the ice of the river near by. At first he did not approve of howling, but towards the last, whenever the dogs of the village started their nightly choruses, old Cook's voice could be heard

ve all the others, and was easily recognizable, from the nsy manner in which he tried to imitate them. Cook's er didn't relish the idea of being a dog's coachman.

ur supplies for the spring were limited to tea, sugar, and k or rye flour, which we had brought with us from Ghiji-

. Of the two former articles we had an abundance, both ourselves and what natives we should employ, but flour comparatively scarce. These people, however, rarely bread, reindeer meat and fish being their chief support.

we could not obtain at all; our main reliance was, there-, upon reindeer, which we hoped to procure in sufficient itities for our purpose from the Koraks or Tchutchus. hese we would require a large number to sustain the kmen, and there being a great scarcity of dog-food, we ld also have to use deer-meat to feed our dogs with.

o obtain the necessary amount, the day after the major's erture, May 10th, I sent Koschevin, the Cossack, off to the aks, on the Upper Myan, with fifteen nartas, and a suffi- t quantity of "chilketski"—tobacco—to purchase eighty ; and also instructed him to try and persuade the Ko- to move their herds down near the mouth of the Olgan, re the field-party would be at work. Fearing lest Kos- in might fail in procuring the necessary number of deer, to provide against such a possibility, I sent Tolstekhin, her Cossack, the following day in a different direction, to procure meat, knowing we would require all that d be purchased.

y this time all the able-bodied men of the place were ab- having accompanied the Cossacks, and we were com- d to postpone our departure to the Myan until some of 1 should return.

arkova is situated upon the east bank of the Markova r, about half a mile from its junction with the Anadyr. lt of timber, that extends a mile or two from these riv- on both sides, furnishes material and fuel for the inhab- s, and also shelters the town from the fury of the winds ide. These woods are the resort of thousands of ptar- n or grouse during the winter months; all around the ement the woods were spotted with them. The natives but few guns, and rarely use them on account of the

scarcity of ammunition, consequently these birds are rarely disturbed, though hundreds are trapped daily, in a species of dead-fall like the fox-trap described on a preceding page. These traps, being light, are set on top of the snow; they are baited with the young buds of the "topolova"-tree, of which grouse are very fond. Up to the time of our arrival the natives had been sustaining both themselves and dogs chiefly upon grouse or ptarmigan, but the warm weather that immediately followed, and consequent thawing of the snow, made their traps useless, since they could not keep them set for any length of time. The people were then obliged to seek food from neighboring tribes. Our arrival proved to be very opportune for them. We furnished them with the tobacco necessary to purchase meat, without which they would have had to depend upon the generosity of their more savage brethren.

The Anadyr River, above the mouth of the Myan, flows through a vast level tundra, quite low, and cut up by innumerable channel-ways or "protoks," as the Russians call them. Many of these are dry except during the spring floods, though large numbers have water in them the year round. In many places, for miles inland from the main stream, the whole country is a succession of large islands separated from each other by an intricate network of these protoks. Markova and Crepast are both situated upon islands. For a good many miles above Markova, and as far down as Crepast, the main Anadyr flows nearly due east, but at Crepast it changes its course to the northeast, and makes a large elbow far to the north, flowing again nearly due south until it meets the waters of the Myan. The land comprised within this elbow is also a large island, there being two protoks running from the Anadyr near Crepast to the Myan. One of these joins the Myan about forty versts above its mouth, at a point called "Vaccarana," and is known as the Vaccarana Protok. The other, which joins the Myan farther up, is called the Myan Protok. Kennan, in making his journey to Anadyr Bay, followed the Vaccarana Protok, and by so doing, instead of following the river, saved two days' journey.

In addition to rafting poles down the river, we also wished

about ten or twelve "yourts," to be erected at convenient distances from each other along the river banks for winter shelter while traveling. With this in view, Lieutenant Macand myself took dogs and proceeded up the river thirty miles from Markova, to examine a number of "letnia povara," or summer huts, the owners had offered us for sale. These had been constructed by the natives for use during the fishing season. Having selected sixteen of the best for our purpose, we called on our return at the settlement of Pakua, an insignificant little collection of log huts.

The only objects that interested us in the place were several very small boats, called "vetkas," that had been left exposed on the river bank by the thawing of the snow. These are so very small and light that we could not think it possible for a man to ride in them. Old Avarani, my driver, informed us, however, that, though it required great skill and practice to handle them, yet they were frequently used on long journeys where speed was required. They were especially made for the pursuit of wild reindeer while swimming the rivers during their annual migrations in the fall, and in the cold, barren tundras north of the river to the mountainous regions south, and also in the spring, when they return to the northern tundras to escape the persecutions of millions of mosquitoes that infest the woodlands. These are equally as abundant on the tundra, but the strong winds make them less troublesome. The vetkas we saw were fifteen feet long and one foot wide, flat-bottomed, and made of three boards hewn out with an axe. The bottom board was three fourths of an inch thick, and pointed at both ends. Each side consists of a single board from eight to ten feet wide, and not more than one fourth of an inch in thickness. They were sewed to the bottom board, and to each other at the ends, with the sinews of deer, the seams being fully sealed with pitch. Two light sticks in the middle of the boat keep the thin sides spread, and prevent their closing. The rider sits flat upon the bottom, and propels himself with a light double-bladed paddle, dipping one blade on one side and the other on the opposite alternately. Under each vetka lay the paddle, and a light spear about twelve feet in length, used in spearing the deer.

While here I was presented with a fine Esquimaux pup that I called "Nik" after the giver, whose surname was "Nikolai." But the native became much alarmed at my giving his name to the dog, and declared that some calamity would befall him if it was not changed. When, however, I assured him that in America we frequently named dogs after men, he became perfectly satisfied.

On the way back to Markova we saw a few geese and swans, and thousands of grouse. Some of the latter were standing on the open tundra asleep, and the snow, which was drifting with a light wind, had covered them until nothing but their heads were visible. Others were completely buried, but broke from their shelter when we approached.

For the transportation of their families, dogs, and household effects in summer, the people of this section use a large boat capable of carrying a dozen persons, called "carbasa." These "carbasses" are simply log "dug-outs," spread by heat and water, with two hewn boards fastened upon each side to increase their size. The sides and bottom are fastened together with sinews, and the cracks chinked with ground-moss. These craft are considered very unsafe in rough water, as the moss sometimes washes out; but, for want of better, the people make use of them. During the delay in Markova, we provided ourselves with summer costumes such as the natives wear, made of light, dressed buckskin, carefully tanned and softened, and smoked thoroughly on one side, to prevent them from stiffening after becoming wet. The chief article of the summer dress is the "comlea," or "comleaka," a long shirt, closely fitting about the wrists and neck, and having a small hood to fit closely over the head, merely leaving the face exposed. This is to protect the head from mosquitoes. In addition to this are buckskin pants; mits, fitting tightly around the wrists; and boots of the same material, soled with thick bearskin. Besides these boots, intended for dry weather, they have others made of seal or horse hide, which, if kept carefully greased, are waterproof. Equipped with these and mosquito nets, and having manufactured buckskin caps for ourselves (the natives wear none in summer), we felt in condition to defy any number of mosquitoes that might assail us. I give, on the opposite page, two actual portraits



IVAN ERMECHKOFF.

of Lamutkas in their summer costume.

Day by day the natives began to return from their journeys, having been generally successful in procuring meat for their families, though many failed utterly.

Having previously made arrangements with Koschevin and Avarani for the construction of two "carbasses" and a fish-seine,

to be ready by the time the river opened, and after leaving instructions for the former to have the sixteen huts we had purchased taken down, and rafted through the Myan Protok to the Myan River, where we would meet them with our rafts, on the 22d of May we took our departure, with all our stores and baggage, together with sixteen men and ten nartas. Other men were to come on afterwards, and bring seal-thongs with which to lash our rafts together, as we had no augurs or any of the implements generally used in constructing rafts. Thinking it possible that we might not see Koschevin again before winter, I also left orders for him to forward twelve nartas to the mouth of the river, as soon as the next winter roads should open, to bring us up in case of accident to the vessel destined for that point.

We arrived at Crepast



FEADOR CHYAN.

during a heavy snow-storm, by which we were delayed until evening, when we again pushed on, traveling all night and until 3 o'clock the next afternoon before reaching the mouth of the Olgan. Traveling was exceedingly bad, particularly on the Myan River, where a number of our sleds broke through the rotten ice. In places it was very exciting traveling. Each sled had to cross the river separately, with the ice bending and cracking beneath it. Very often, had it not been for the speed of the frightened dogs, we would have inevitably gone down with the current, for behind each sled was a long train of open water where the ice had given way beneath its weight just as the sled was passing. On the road we shot our first goose.

The following day all hands went to work constructing a large log house for shelter, which was also to be used afterward as a store-house. This would have been completed in five days, but on the 26th of May two nartas arrived from Koschevin bringing only twelve deer, sufficient to feed our dogs but two days, and the discouraging intelligence that no more could be procured on the Myan. The natives, though perfectly willing, could not drive their deer to the Olgan, as it was the breeding season, and the does could not undergo the journey. He had gone, however, in search of some Koraks living to the westward of Penjina. Up to this time nothing had been seen or heard of the Cossack Tolstekhin.

Finding that we would be unable to sustain the dogs here, Monday, 28th of May, I sent them all back to Anadyrsk with Harder, whom I instructed to bring all the laborers he could procure, together with a carbass to enable us to cross the intervening rivers and protoks, should we be compelled, from want of food, to vacate the place and return to Markova. Hitherto, in order to save the deer-meat for our dogs, we had succeeded in shooting enough geese to sustain the whole party. It was fine sport indeed. Every night, at 11 o'clock, it being perfectly light, and that being the flying-time of the geese, we would strap on our snow-shoes and cross over the Myan to some open swamps beyond. After taking our stands in different places, whenever a flock or single birds flew over in easy range, the fusillade would commence, and by 1 o'clock we would have as many birds as we could stag-

er under. But soon the geese began to seek other patches of water, and the ice on the Myan became so unsafe that we could no longer venture across.

On the 29th the Markova priest—a Yakout, who possesses all the vices of the rest of the brotherhood in Eastern Siberia—arrived with fifteen deer, and stated that Koschevin was at Markova. He had procured twenty deer, but, feeling satisfied that we would be obliged to return to that place, had retained five there for our sustenance during the spring flood. Olstekhin had also returned to Markova without success. In addition to his disappointment, the poor fellow had undergone one severe hardship. He and his companions were four days without food, except a small piece of seal-thong they had boiled up for one meal, and their dogs had had nothing for five days.

The fates seemed to be arrayed against us. In the first place, many of the inhabitants were in very destitute circumstances, or unfitted by disease for labor, so that we could not procure more than a handful to accompany us to the Myan without depriving many families of their only support. As happened, I was obliged to send three of the men back to Markova and provide for their families, not being able to supply them with the meat I had promised them. Another obstacle was some misunderstanding that had arisen between the neighboring Tchutchus and Chuansees with regard to supplying the inhabitants with deer-meat, which resulted in their refusing to render any assistance whatever. And then, in addition to not being able to procure deer for dog-food, we were hindered in securing sufficient seal-thong with which to construct our rafts. It was evident we would have to vacate the Myan, but, not wishing to do so without accomplishing something, we put all the men at work cutting and piling up telegraph poles for future use.

May 30th, Harder returned from Markova without having secured laborers, but he had brought a carbass with him to one of the largest protoks we would have to cross on our return journey. He reported that the rivers were all about to break up, and that, unless we returned immediately, we would not be able to do so at all.

June 1st, Macrae and Harder started for Markova with our

baggage and what few stores we had, with instructions to send back sleds enough to carry the rest of us through, and on the following day the ice in the Myan began to break up, and the waters to rise very rapidly. It was a magnificent sight to see eight months' accumulation of ice and snow sweeping by at a six-mile rate, foaming, crashing, and roaring, and the large masses of ice piling upon each other, or playing "leap-frog" down the centre of the stream. In a few hours the river was full to the brim and beginning to run over its banks, threatening to inundate our locality; but the timely arrival of the sleds on the 3d of June enabled us to escape with our implements, though the snow in places was perfectly saturated with water. After crossing the ridge to the valley of the Anadyr, we found the traveling much better. To cross one stream we had to use ice-rafts, and, where the carbass was left, the protok was entirely open.

Our journey to Markova was exceedingly hard. Had we been a day later, we could not have effected it at all. By constant traveling day and night we reached the settlement on the 4th of June at 11.30 o'clock P.M., having been thirty-six hours on the road.

Upon our return we found the Anadyr still sealed up, excepting here and there a small patch; but these places had been open for many days. Large numbers of geese, ducks, and swans infested them, but were too wary to be shot; besides, our small stock of ammunition had been nearly exhausted on the Myan. We, however, availed ourselves of this open water to become familiarized with the management of vetkas, and it was not until we had each experienced some chilling duckings that we learned to sit in them.

These were curious days to us; in fact, days only, for, during the twenty-four hours, at no time was it dark enough to distinguish a star. When we retired it was broad daylight, and when we awoke it was broad daylight, and even if we didn't sleep at all during what ought to have been night, every thing was lighted up by the glare of the sun except for the short space of two hours between sunset and sunrise. A few days later it was cut down to less than an hour. Though the sun disappeared from sight during this short time, it barely skimmed along beneath the horizon, and dur-

g its absence the northern heavens were all aglow with the most gorgeous displays of gold, crimson, purple, orange, and, in fact, all the most beautiful and delicate tints, blending in the harmonious whole, and casting a lustre of indescribable beauty over the, at other times, cold and cheerless landscape. At times this variegated display was partially obscured by heavy, accumulated masses of dark cloud, bordered with a glittering fringe, and blushing where exposed to the rays of the departed sun.

One of these sunsets at midnight on the Anadyr I shall never forget. It excelled in magnificence any thing of the kind I had ever beheld, and continued with undiminished brilliancy for nearly two hours. During this period a heavy under-cloud rolled majestically across the heavens, and parted its forked tongues of vivid lightning athwart the variegated curtain of light suspended beyond. Thunder-storms are quite rare in this section, and on this occasion the natives began to cross themselves and mutter their prayers. Upon telling them that we used lightning in transmitting messages by telegraph, they thought us very sacrilegious, and were much horrified.

During this perpetual daylight it was immaterial when we awoke and when we arose, but from choice we selected the hours naturally belonging to night, or the greater portion of the day, for our day. During these hours it was more quiet, the air being somewhat cooler, we found it more pleasant, for by this time the heat of the sun was beginning to be itself felt. We could see distinctly at all times to read or write indoors.

What struck me as being most singular was the regularity in which birds and animals observed the hours of rest and activity. Upon emerging from our quarters, at one time all would be full of life and activity; wreaths of smoke curling from the mud chimneys of the different habitations, and the sledges constantly passing back and forth with sled-loads of sticks for fuel, drawn by teams of active, wide-awake dogs. Strings of women would be wending their way to the water-holes, and returning with their tubs filled to the brim, suspended to poles carried across their shoulders; while the dogs could be seen prowling about the village, catching

field-mice, or contesting with the magpies for the possession of some stray morsel of food. In the neighboring trees grouse and numerous other birds fluttered about from limb to limb, plucking fresh buds from the twigs, and filling the air with their notes. Intermingled with these could be heard the sound of the axe, the shouts of the dog-drivers, and the laughs and songs of the girls going to the well. Every thing and every body was alive and awake.

A few hours afterward I again step from my quarters, and, though the sun is shining as brightly as before, all is hushed, and a deathlike silence prevails. No smoke, no people are to be seen. Here and there, coiled up in the snow, with their bushy tails covering their faces, lie the village dogs wrapped in oblivion; and the magpies, with drooping tails and closed eyes, sit nodding on the sled-bows and rough projections of the houses. Not a movement is visible among the bare limbs of the neighboring forest, but here and there, on all sides, the white grouse may be seen with their heads nestled under their wings, and their snowy feathers hugged closely to their sides for warmth. With the regularity of a clock, at just such times, all nature retires to rest, and, with equal precision, each morning she arouses herself.

Immediately after our return from the Myan we made preparations to secure the yourts I had purchased from being swept away by the freshet; but on the morning of the 6th of June the ice in the Markova River began to open in long seams, and the water to force its way through, overflowing the surface so rapidly that some natives on the opposite bank were hardly able to get back to the village. In a short time the pressure from beneath was so great that the ice had to give way, and all up and down the stream we could hear the heavy rumblings, and loud, sharp reports, as the thick winter coatings were snapped in twain, and came foaming to the surface of the now raging torrent. The water rose very rapidly, but at first the current was choked up by the accumulated masses of ice, jammed together among the islands below. By degrees the current gathered force, and suddenly the ice-dam gave way. Then the wildest race ensued among the ice-blocks, each apparently striving to pass the other, and crowding, squeezing, or trying to force its

neighbor beneath the boiling flood. The river was strewn with tree-trunks and logs, writhing in the mad tumult, and tossing their scarred and twisted arms in the air as if imploring assistance; but onward they were hopelessly swept to mingle in the fury of the neighboring Anadyr, while other logs took their places in the vast moving panorama before our gaze.

It was a thrilling sight, and all the inhabitants assembled on the river bank, crossing themselves, and firing blank cartridges from old flint-locks, according to their annual custom. This custom is a relic of their old pagan superstitions. It is a form of worship to the spirit of the waters, upon whose bounty they depend for their winter supplies of fish.

Twelve hours after the ice opened the whole country was a vast lake, and many of the inhabitants had to desert their houses and take shelter on the roofs, with their families and dogs, or resort to small hummocks that jutted from the flood. Our quarters fortunately were just out of reach of the water, which flowed all around them, however, and to go any where we had to use boats.

This is the "starvation" season of the year. Being the tail end of the long winter, the supplies of the inhabitants are all exhausted. The flood has driven the native tribes to the mountains, and cut off all communication with them; and even the vast numbers of water-fowl have taken refuge from the ice-flood, and sought the more quiet waters on the open tundra. No fish can be caught, nor are there any grouse to be seen. These last have all gone to the knolls on the tundra to build their nests. Though better off this spring than on most former similar occasions, yet there was a good deal of suffering. One family was so reduced that they ate only once in two days. Our deer-meat that we had saved from winter spoiled as soon as warm weather came on so that we could not eat it, and, as the natives were ready to eat almost any thing, we willingly distributed it among them, but the quantity was too small to appease their sufferings much. One native came to me with tears in his eyes, and told me that he was in a fearful state of want. He and his family had been subsisting for several days upon dog-harness which they had boiled into soup. Others were eating their deerskin bed-

ding. Our own supplies were reduced to a small quantity of black flour, and barely enough tea and sugar to take us to the mouth of the river, therefore we could render them but very little assistance. The dogs were in a fearful condition. Many of them subsisted altogether upon the carcasses of their starved companions.

At Crepast some of the more enterprising inhabitants supported their families altogether by paddling in their vetkas to the hummock islands on the tundra, and knocking down rabbits with sticks. These animals had congregated in large numbers on some of the knolls to escape being drowned.

As soon as the river was sufficiently free from ice, all the destitute inhabitants, with their dogs and household goods, took carbasses and started for the mouth of the Myan, to catch fish and watch for the swimming of deer, leaving Markova nearly deserted.

During the freshet Koschevin and Avaram completed the two carbasses. By the 19th of June the waters had subsided, so that it was only waist deep around most of the yurts we intended to carry with us. We then proceeded at once to take down the huts and construct rafts, and by night of the 20th of June had eight of the huts, each complete in a small raft of itself, and all lashed together, so that one could be detached when required without interfering with the others. In the mean time Harder had been sent up the river to procure other houses, but, on account of the freshet, could secure only two, which were floated down and attached to the main raft. We had now only two days' supply of black flour for ourselves and eight natives who were to accompany us, and but little tea and sugar left. Meat we had not tasted for many days. All being in readiness, and having no time to lose, since we could not expect to get other food before reaching the mouth of the Myan, on the 22d of June we set ourselves adrift.

CHAPTER XXVII.

posed Voyage.—Rafting down the Anadyr.—Collision.—Assistance from Markova.—A wild Night's Ride.—Longest Day.—Entering the Protok.—Flooded Country.—Vaccarana Protok.—Reduced Rations.—Native Stomachs.—Watches.—A Swim.—Astonished Natives.—Avaram's Swimming.—Character of Inhabitants.—Timidity.—Ducks and Eggs.—Avaram's Adventure.—"Kamuk!"—Slow Progress.—Winding Course.—Horse-hair Nets.—"Nik" and Kiote.—Vaccarana.—Whitefish.—The Myan again.—Wild Deer.—Preparations for Spearing them.—Foiled.—Manner of Spearing.—Skill.—Disappointment.—Camp of Natives.—Replenishing our Larder.—Mosquitoes.—Deep Water.—Petrified Wood and Mammoth Tusks.—Deer Migrations.—Mouth of the Myan.—Markova People.—Feasting.—Halt.—At the Lee of an Island.—Pleasure of Rafting.—Sunset and Sunrise.—Wild Deer.—Giving Chase.—Bidera and Bidarka.—Bailliee, or White River.—Origin of Name.—Meat-hunting.—Fish.—Wild Flowers.—Expedition up the Bailliee.—Quicksilver.—Annoying Winds.—Fresh Meat.—Provision Gone.—Running the "Thousand Isles."—The River.—Exciting Chase after Deer.—The Death.—Tchutchu Yangas.—Bideras.—Yan-den-kow's Liberality.—An Invitation.—Tents.—Jerking Meat.—A Feast.—Parting Presents.—Oochostika.—Building winter Yourts.—Mosquitoes.—Swollen Faces.—Sufferings of Dogs.—Moske.—Mocrusa.—Harder's Return and Success.—Asbestos.—Copper.

NEARLY five hundred miles of river and protoks had to be aversed before we could reach Behring Sea, and, since neither ourselves nor any of our native crew were at all acquainted with the last three hundred miles of the voyage, or were familiar with the rafting, it was not without some feelings of dubiousness that we loosed our moorings in the quiet protok, and drifted slowly out to join the furious current of the Anadyr. The waters were yet fifteen feet above their summer level, and sweeping on toward the sea at a six-knot rate. Once fairly launched, unless our raft should smash to pieces upon some of the numerous islands that lay in our path, we felt confident of a speedy voyage.

Beyond Crepast it was our intention to follow the Vaccarana Protok through to the Myan River, and thereby avoid the long detour of the Anadyr to the north.

From the junction of the Myan with the Anadyr to the

mouth of the Baillie, or White River—a large tributary of the latter flowing from the north—our guides assured us we would have good sailing, but at that point their knowledge of the river ended.

The day was clear and warm, and in every respect but one favorable for our departure. This one obstacle was a strong northerly breeze that swept across the river, and, catching the piles of bark roofing that lay on our raft, kept us constantly under the lee-shore, in spite of our exertions at the sweeps. It was only with the greatest difficulty we were prevented from being driven ashore.

While dashing along in this manner directly under the overhanging river banks, about three versts below our starting-point we suddenly came to the entrance of a protok, through which a portion of the waters swept with a powerful current. Directly ahead of us, and not two hundred yards distant, appeared a pointed island upon which the waters split, and for this our raft was going at a furious rate. All hands sprung to the sweeps, but the wind and the current of the protok being unfavorable, hardly half a dozen strokes had been made before the crash came, prostrating nearly every man by the force of the collision. The strength of our raft was severely tried, but the stout seal-thong lashings held their own bravely, and, other than a few broken logs, it sustained no injury.

After colliding, we swung into the entrance of the narrow protok, and became blocked.

The strength of the current made it impossible to extricate ourselves with our present force, and, being yet near Markova, one of the men was dispatched in a vetka to go to that place for assistance. Seventeen additional men soon joined us, and, with their assistance, after nearly two hours of towing and poling, we again attained the river bank two hundred yards above the island. The wind having died out, our second attempt was successful, though even then the raft grazed the island. Owing to the numerous channel-ways that intersect the country between Markova and Crepast, we retained several of the men to provide against farther emergencies.

At length, after near twenty hours of the wildest and most

ting racing, we emerged from the islands just above the age of Crepast, and entered upon a wide, open stream, a good current and clear sailing.

This was the longest day of the year. Between sunset and rise only fifty-five minutes elapsed, and, though the sun obscured from view, we had abundant light even for fine print. At 3.30 A.M. we floated by Crepast, and ashore for assistance to enable us to enter the Vaccarana tok, which lay a few versts down the stream. At this a strong wind arose, blowing against the current of the r. The waves rolled quite high, and caused our raft to rock and bend. Notwithstanding this, the wind was of great assistance to us, checking our speed, and enabling us to work the protok much more easily than would have been possible under other circumstances. Once in, we sent back the ra men, and prepared to fight our own way to the sea.

From our raft, after entering the protok, not a trace of land was visible excepting two ranges of hills, each at least five miles distant. We could only judge of the course of the protok from the parallel lines of tree-tops that jutted from the water. Between these we carefully kept the raft, the waters should subside, and leave us high and dry.

But what a contrast! Instead of the furious rate at which we had swept along on the Anadyr, our progress was now very perceptible. This was rather discouraging, considering the scant condition of our commissariat, which was reduced to but little over one day's supply of black flour, and sugar for nearly two weeks. Fortunately, the men who joined us from Crepast brought some putrid deer-meat with them and gave it to our crew. Though we could not eat this ourselves, yet it diverted the appetites of our men from the black flour, which, by economy, we hoped to be able to subsist upon for several days.

The presence of various creatures in the meat that did not originally belong to it did not seem to disconcert our men in the least; picking them out one by one with the points of their knives, they tossed them overboard, and continued their meals with the greatest possible unconcern.

Our progress so far since entering the protok had been at a rate of about half a mile to the hour, but we perceived

that the farther we advanced the more speed we gathered, and, although the protok was about fifty miles long, we still hoped to get through it, and reach the Myan by the time our flour gave out.

In order to travel day and night, we divided our party into two watches, to relieve each other every six hours, six men being sufficient to control the raft except in very rough weather. Up to this time none of us had slept for forty-eight hours, excepting an occasional cat-nap. It being Smith's and my watch "on deck" first, to keep awake we had a good swim in the protok, and, although the water had but just been freed from ice, did not suffer in the least from cold. The men were much astonished at our swimming, it being new to them, and our diving beneath the surface caused exclamations of alarm as well as of the greatest surprise. After the first dive they aroused their sleeping companions, and in a few moments all hands were curiously watching us, and continually exclaiming "Sorovno kak outka!" (just like ducks). Old Avaram, who was with us, had the reputation of being the best swimmer on the Anadyr, and we induced him to jump in. Before doing so, he provided himself with two large chips to hold in his hands as paddles, and then only by great exertions and considerable floundering did he manage to keep on the surface at all.

These natives are, without exception, the most artless, simple-minded, and timid creatures I ever beheld. Their only vices they learn from their priests, whom they regard as almost superhuman beings, even worshipping their faults. The majority of them are utterly without courage, it being with great difficulty that I could induce any of them to accompany me to the mouth of the river, on account of their dread of the Tchutchus. Some of them will nearly go in spasms if a dead mouse is thrown among them; and one in particular, named Goorilla, though unable to swim a stroke, during the construction of our raft jumped overboard to avoid having one thrown upon him. Avaram was the only man in the whole country of any courage. He often went bear-hunting, on which account his companions regarded him with perfect awe. But even he was extremely timid in some respects, being very superstitious.

ing our first night on the protok we occasionally entered small hummocks jutting from the water. On one the Smith found a duck's nest containing eight eggs, and succeeded in shooting the duck. This was a welcome addition to our larder. Old Avaram then started ahead etka with a gun to try his luck, and we saw no more again for several hours. At last he came paddling up raft, wet from head to foot, and his eyes nearly popped from their sockets. He was evidently troubled about hunting, and with a long, solemn face seated himself, not saying a word to any one. Having brought no game with him, I thought that might possibly be the cause of his troubles, and ventured to ask him what was the matter. He replied gruffly, in the Tchuetchu tongue, "Kamuk! iked!" (Devil! upset!) and that was all we could get from him for nearly an hour, when he explained his meaning. While paddling along watching for game, he was suddenly startled by hearing a sharp whistle near by him. Looking in the direction the sound came from, he saw nothing, but the next minute it sounded behind him. Then he was satisfied it was the devil, and became so frightened that he tipped overboard. We told him that the sounds were made by the bird, but he could not believe it. The poor fellow had been so for several days, however, for his superstition, for one day a jovial, good-natured fellow named Ivan, when he caught Avaram's eye, would give a short whistle with his finger at the water, bob his head, and cry "Kamuk!" at the same time shaking from head to foot with laughter. He would never smile, though.

Our progress through the protok was so slow that we had no spare time to examine nearly every island, and our search was usually rewarded by finding enough eggs, or shooting a few geese, ducks, and hare to keep us in fresh meat. Sometimes we had to tie up our raft to avoid being driven off by strong winds. On these occasions we would throw out our horse-hair gill-nets to try and catch some fish, but we seldom succeeded. These nets were made of horse-tails, four being used in each strand. They were light, and not distinguishable in the water, yet sufficiently strong to catch large fish. These people prefer them to all others for

"set"-neta, though they easily rot, and require great care to be preserved.

The protok was very winding. In many places we could shoot a pistol-ball across the necks of peninsulas that we would be hours passing around. However, our raft life was so comfortable that we could endure these delays as long as we had plenty of food. When the wind would allow, we erected a small canvas tent that had belonged to Macrae's party, which afforded us shelter from the heat of the sun. Had it not been for mosquitoes that began to swarm over the raft, we would have been perfectly contented with our lot for the time being. These pests made it necessary for us to retain our skin clothing day and night, and, though completely covered from head to foot with buckskin, and having cords tied around it at our wrists, ankles, necks, and waists, so as to leave no openings, and wearing mosquito-nets incessantly, we all suffered much from their bites. Our two dogs—"Nik," of whom I have before spoken, and "Kiote," one belonging to Macrae—were tormented nearly to death. Their only refuge was in the smoke of the fires we kept on the raft for cooking purposes. This smoke we also availed ourselves of while preparing for swimming, and in dressing afterward.

Wednesday, June 27th, when we had eaten the last of our game and eggs, we came in sight of what is called Vaccarana, a solitary house on the side of the protok, about a mile from the Myan River. Without stopping the raft, we sent men ashore to try and procure provisions, but they returned in half an hour, reporting that the place was deserted. They had succeeded during their absence in catching with the hair-net two fine large fish called "baillee," or whitefish; but these were hardly a mouthful for twelve men.

Shortly afterward we struck the Myan. At this point it was a magnificent stream more than a mile in width. We sounded, and found twenty-one feet of water; but Ivan told us that where we were then sounding was a dry bar in summer.

We had hardly entered upon the Myan when one of the men enthusiastically cried out "Alane! alane!" and, glancing over the adjoining tundra, we saw twelve or fifteen wild deer feeding leisurely toward the river bank, when we expected

would attempt to swim the stream. All was excited, though our preparations to spear them were made out the slightest noise. The raft was immediately tied and each of four vetkas we had on the raft was put into water, when the riders carefully sat in them, armed with long, light spears, and began to shoot rapidly across to opposite bank of the river, to await the approach of the deer in the water. Then it was their intention to suddenly leap out, and, having surrounded the animals, keep them swimming in a circle until they had speared them all. Wish-
ing to participate in the sport, I took Macrae's carbine and vetka, and was soon located on the opposite bank, ready to shoot any animal that might by chance reach the shore. Minutes were like hours, the mosquitoes tormented me so, finally, in utter disgust, I paddled back across the stream, where I found the others had preceded me. The deer had become frightened from some cause, and ran off, so we were only denied the sport, but the acquisition to our supplies. Expert natives have been known to surround and spear a herd of three hundred deer, and not allow one to escape. Sometimes, when a very large herd is swimming, a whole element joins in the attack, some with vetkas and spears, others with carbasses on the river below, to pick up the carcasses as they float down. On such occasions the occupants of each carbass keep all they pick up, and those deer manage to reach shore before dying belong to the spear-

These last are so expert that every fine fat animal they come to they spear in such a manner as to give it just time to reach shore. The inferior ones they kill on the spot, for they have carbasses to pick up. Sometimes, while surrounding in this manner, the deer show fight, and it is necessary to give them wide berths with the light vetkas, which they would otherwise sink or capsize.

We were considerably disappointed, but shortly afterward a vetka joined us from below, where several shots had just been fired, and we learned that the owners of Vaccarana were near by, from whom we could procure both fresh and jerked deer for present use. They had already speared sixteen.

We paddled down to their camp, which was a mere clearing, but nevertheless received a truly hospitable welcome.

They fired the guns as a salute upon seeing our *vetkas*, as they knew them to belong to our party. Two families were camped here, their only shelter being an old *polog*, and another habitation formed of a *carbass* inverted, with deerskins suspended around it. This being the season for deer to migrate north, they had selected a spot on the northerly bank of the *Myan*, and pitched their camp in the midst of a thick cluster of "*kedrovník*," or scrub pine, out of the sight of deer swimming from the opposite bank. Musquitoes swarmed about the place like bees, and tormented us nearly to death, though the little half-naked natives ran about in their midst, and appeared to pay no attention to them whatever.

The night was calm and bright, and, not wishing to lose the good opportunity, as soon as the raft floated down we rejoined it without stopping, taking two days' supply of jerked meat with us. This meat is simply cut into thin strips and allowed to dry in the sun. Large portions of it become so tainted before curing that it is unfit for any but native palates, but we gladly accepted the acquisition to our stock of supplies. The *Myan* at this point is over half a mile wide, and flows in a northeast direction, bordered on the northwest bank by a range of low hills, and on the other by a succession of rolling tundra covered with patches of stunted pine. In no place did we get less than eighteen feet of water, and in the channel we frequently found it ten fathoms deep; but now the stream is twenty feet above its ordinary level. From this point Kennan, in his journey to *Camp Macrae*, took an easterly course across the tundra, and rejoined the *Anadyr* at a small *Tchutchu* settlement called *Oochostika*, thereby saving a day's journey. The *Anadyr* makes another large bend to the north from the mouth of the *Myan*.

Ivan, one of our men, told me that on this tundra is a partially petrified grove of *kedrovník*, and that quite frequently mammoth bones and tusks are found there by the natives. The tusks are some of them fifteen feet in length, of fine ivory, and are bartered to the Russian traders for tobacco and other articles.

At noon on the 18th of June we arrived at the confluence of the *Anadyr* and *Myan*. These two streams run so squarely together that one appears to be a continuation of the other,

and it was not until we arrived at the very junction that we could perceive the main stream breaking off abruptly to the eastward. This point is one of the greatest crossing-places of reindeer in the fall, when they travel south in large herds, and hundreds are killed annually. During the winter these animals become scattered, and in the spring pick their way back northward singly or in small bands, so fewer are killed at that season of the year.

At this point is quite a large summer village, where the natives live during the migrating season, but at this time it was vacant. Below the junction the Anadyr is a magnificent stream, in one place two miles wide, and contains several small islands wooded with kedrovnik. This pine-brush is the nearest approach to trees to be seen any where along the river for a great many miles.

Eight versts below the Myan we came to the point where the Markova people had assembled to fish. Their temporary habitations formed a motley group, and were composed of every thing that could be possibly used in the construction of shelter. The poor people had much more cheerful countenances than when we last saw them, for now they were beyond want, and had good prospects ahead. They managed to catch enough whitefish for daily use, and some of them had a small stock they had dried. These fish were perfectly delicious; firm, and delicately flavored, and so fat that, while curing in the sun, the grease drops from them. They supply their own fat for frying. Here we tied up for two days to try and catch a supply for our journey, but only caught enough for use during our stay. On the morning of the 30th a strong wind arose, and the waves rolled so high that they threatened to demolish our raft. We dropped down stream to the lee of an island to wait for the wind to subside, and again pushed on at 7 P.M. Owing to strong back currents, we met with much difficulty in extricating ourselves. It became necessary to put lines ashore and tow the raft out of the protok in which we had taken shelter.

For the next twelve hours we had a glorious sail. The river was on an average a mile in width, with a strong current, and the night was light and calm. We rolled on with the vast volume of water in perfect comfort, having no cares

to harass us, and no occupation but to light our pipes and watch the ever-varying panorama of the shores, now glowing in the last warm rays of the departing sun, and now sparkling beneath its glance as it ushers in the morrow, before yesterday's blushes have faded from the northern heavens.

During the night two deer attempted to swim the river about a mile ahead of our raft, to which some of the men gave chase, but, just as the leading vetka was within thirty yards of them, they climbed out on shore and made their escape.

About twenty versts below the settlement the river changes its course from nearly due east to N. 25° E. About this direction it continues to flow for forty versts, bordered on each side by ranges of high hills that were literally specked with wild reindeer grazing toward the north. Deer at this season look nearly white, as they are beginning to shed their thick winter coating of hair. At 6 A.M. we were joined by an old Korak, bound for the mouth of the river with his family and three or four dogs, all piled up promiscuously in a "bidera," or large walrus-skin canoe. He also had a small "bidarka" of the same material, capable of carrying one man, and entirely covered over the top except at a circular aperture in which to sit. By 7 o'clock we arrived opposite the mouth of the Baillee, or White River, which empties into the Anadyr from the north. This stream derives its name from the color of its waters, which are many shades lighter than those of the Anadyr. The natives claim that this is occasioned by large beds of a soft white stone over which the river flows. Quick-silver is also found on its banks, specimens of which the Tchutchus occasionally carry to Anadyrsk.

This is another favorite crossing-place for deer, and as there was a strong wind blowing and two or three families camped near by, we tied up to try and catch some fish as well as to procure deer-meat. Mosquitoes nearly devoured us, in spite of our skin clothing and nets. The adjoining tundra was radiant with wild-flowers of many varieties and hues. As soon as we had tied up, we started some of the men off to procure meat, but they soon returned with the report that none was to be had at that point, though they brought the information that two days' journey up the Baillee one native had speared more than one hundred of those animals. There

ing no certainty of our procuring meat below this point—is being the lowest camp of the Anadyrsk people—I sent order with a carbass and two natives up the Baillee to procure a supply, intending to push on as soon as the wind could abate. We had found it utterly impossible to travel the wind. The piles of bark on our raft presented such a rface to the breeze that we were invariably driven ashore. had from the first been our aim to keep the middle of the team, and then at the first puff of wind to try and gain the rather shore, but the winds usually came up so suddenly at we rarely succeeded. We were detained by the weather til 3 o'clock the next morning, July 2d. During this time veral of us went ashore to try and shoot some deer, but led to get a shot. Some of our men also started off with tkas, but had not returned when we loosened the raft. pon firing several shots as a signal, they rejoined us, bringing a fine large buck one of them had speared. This again ced us beyond want for the time being, and, together with lf a dozen large whitefish we had caught while tied up, ide no mean variety to feast upon. Unfortunately, however, the weather was so warm this food would not keep, and e were obliged to dispose of it immediately and let the fure provide for itself. Our black flour was now all gone, d our supply of tea and sugar was reduced to one pound each.

From the mouth of the Baillee the Anadyr makes a sharp nd, and flows S. 35° E. to Oochostika, about forty miles. o that place it is crowded with innumerable islands, among rich the waters of the Anadyr, re-enforced by those of the illee, rush at a furious rate, boiling, and foaming, and falling almost in a cascade. For six hours, while running these ands, we had an exciting race. No one knew what we ould encounter next, and invariably, after passing one difficult place, we would find ourselves rushing headlong towards a point of another island. By straining every muscle, all nds being at the sweeps, we would perhaps graze it by a rd or two, then only to find ourselves about to wreck on e next. These islands are mostly wooded with low poplar d willow trees, though the neighboring country is barren. ie south bank of the river is a high bluff, that gradually

rises as it recedes, until three versts from the river it becomes a respectable range of high hills. The north is flat, and reaches for about forty versts, where it is bounded by a distant range of mountains, running apparently east and west. In this portion of the river, which we called the "Thousand Isles," we found fourteen fathoms of water.

We had just emerged from the islands into open water when one of the men cried "Alane," and, two miles ahead, we saw a deer in the act of stepping into the river to swim. Three of us at once jumped into vetkas and started in pursuit. In the race that ensued, though I exerted myself to the utmost, I was soon left far behind. It was a pretty sight, however, to see my companions shooting ahead in their miniature boats, with a long train of foam behind each of them, and the damp blades of their paddles flashing in the sunlight like electric sparks, first on one side and then on the other, in rapid succession. The race was doubtful, but, just as the deer approached the shore, Vassilly, a Chuansee, who had killed the last one, darted his vetka in ahead of the animal, and turned it back towards the middle of the stream. Now there was no hope for the poor animal, whom the natives kept swimming around in the current until I could come up. They wanted me to spear it, but I didn't have the heart to do it, the creature looked so utterly helpless and frightened. I excused myself by telling Vassilly that it was his game, as he had headed it off. For an instant the long, light spear poised opposite the deer's side; then a short, quick dart forward followed, and the deed was done. A thick stream of blood poured from the animal's side, staining the water for yards around, and, after half a dozen nervous, spasmodic strokes with its hoofs, the creature slowly rolled over on its side, and its head dropped below the surface. The body floated, and might have continued to float for half an hour, but sometimes they sink sooner, and, to be sure of saving it, Egor and I put our vetkas side by side (one not being sufficient), and supported it by the antlers, while Vassilly returned to the raft for a "carbass." It was a large buck, but was very poor, the mosquitoes having tormented it nearly to death.

From a point about ten versts above Oochostika, on the

right or southern bank, the hills approach the river, terminating in a high bluff. At the foot of this bluff Oochostika stands. Before reaching the bluff we discovered four Tchutchu "yarangas," or skin tents, pitched in a group on the north bank of the river, which is here about a mile in width, and shortly afterward two small "bidarkas" came splashing through the waves to join us. In propelling these little skin canoes the Tchutchus use a double-bladed paddle, like those belonging to our vetkas, though more clumsily made. To one end of these paddles they have a short spear attached, for spearing deer.

As they stepped aboard the raft, one of them, a tall, good-natured looking fellow, named Yandenkow, was pointed out to me by one of our men as having rendered Kennan great assistance during his journey up the river. On his way up from Camp Macrae, upon arriving at Oochostika, all of Kennan's dog-food was exhausted, and there was no possibility of procuring other along the route. Yandenkow, learning his condition, presented him with twenty deer from his own winter supply, without receiving compensation, Kennan having nothing with him at the time to give in return. We told him that we had heard of his generosity, and made him a present of some powder, lead, and tobacco, which pleased him greatly.

But the special object of his visit was to invite us over to his "yarangas," to eat with him, having learned of our approach from the Korak who had preceded us from the mouth of the Baillee. He informed us that he had prepared a feast for our especial benefit.

Not wishing to disappoint him, we tied up our raft a short distance below where they had joined us, they assisting the men in handling the sweeps, and, taking our large carbass, pushed for the opposite shore, where the tents were.

Four filthy, smoke-blackened skin tents were pitched upon the edge of the tundra, sheltered from the warm rays of the sun by clouds of ravenous mosquitoes. Among these pests half a dozen little naked savages were playing, utterly heedless of their attacks. The tents were like those of the Tungusians in form, consequently were not new to us, though a long line of scaffolding, extending along the beach, and bur-

dened with the meat of upward of one hundred deer, was not only a novel, but a welcome sight. About twenty others, just speared, lay in the water, waiting to be dressed and cut up.

The worst feature of the place were the piles of entrails, in all stages of decomposition, scattered about promiscuously among the tents.

Upon entering Yandenkow's yaranga we were met by a dense cloud of smoke that was almost unendurable; but by throwing ourselves upon some verminated deerskins, and hugging closely to the ground, we stood it for half an hour, during which time a large wooden tray, piled up with steaming deer-heads, was brought in, and the feast was announced. Our appetites were thoroughly appeased by the mere appearance of the heads, together with Korak recollections revived by the wooden tray, and we excused ourselves as best we could, but our men soon demolished what meat the tray contained, and did not stop eating until they were confronted by nothing but a pile of clean skulls.

As we were leaving, the Tchutchus presented us with some very nice fresh deer-meat, and several bladders of tallow for frying it. They also filled our carbass with jerked meat for the men, who relished it all the more for being spoiled.

Having rejoined the raft, we immediately pushed on, and arrived at Oochostika at 7 P.M., July 2d. All there was to be seen of the settlement was a number of holes or cellars, in which two or three winter hovels had been constructed. Owing to some superstitious notion, the Tchutchus tear down their houses every summer, and rebuild them in the fall.

At this point we landed and erected our first yourt, which occupied us in building until the night of July 4th. It was constructed as comfortably as possible for winter use, with a good roof of logs, sod, and bark, and a "chual," or fireplace, formed of light poles plastered over with three layers of clay, each being well hardened by heat before another was applied.

During our stay at this place we were quite successful in catching whitefish; some of them weighed fifteen pounds.

musquitoes were abominable. Many of our faces were swollen from their bites as to be hardly recognizable, though we went night and day in full armor of buckskin clothing. The weather was very warm, and, in our buckskin, we found the heat almost unendurable, but that was tolerable to the mosquitoes. While erecting the hut we found it necessary to build fires on all sides, in order to be warmed by the smoke; and our poor dogs (of whom there were now five, three having joined us below the Myan) went howling and whining about day and night, unable either to rest or sleep. Two of them, in their torment, had torn off all the hair from their backs with their teeth. Their hair is generally a protection against these insects, their vulnerable points being the tops of their feet and their faces. I counted nine of them boring at one time into one dog's eyelids. The poor fellow was whining piteously, and did not know how to rid himself of them.

They told us that there were three great pests here during summer months. First come the "comare," or mosquitoes, to which the natives pay but little attention. Then a small gnat, with speckled legs, called "moske," appears.

These are, in the language of the people, "sheepka hooda," or very bad. They come later than mosquitoes, and appear in great swarms. No kind of clothing can shield you from their attacks, as they crawl through the smallest holes, and get into your hair. Their bites are not only very painful, but poisonous, causing much swelling. They are often fatal, especially in whose nostrils and ears they crawl, and then sting.

During the "moske" season the people take their dogs into their houses with them, and keep the rooms constantly filled with dense smoke, arising from small fires built all over the floor. We were glad to learn that the mosquitoes were not very troublesome near the sea-shore, and sincerely hoped to reach the mouth of the river before they should make their appearance. The third are called "mocrusa," but are not very bad.

As far as our own experience went, we preferred the winter, with its extreme cold, to the mosquitoes which existed on the Anadyr. If mosquitoes are worse than cold—deliver us from them. During the last four days,

while at Oochostika, we had found it necessary to exist altogether in a dense smoke, upon the verge of suffocation the whole time; there being a choice between only the two evils, we chose smoke. Buckskin is the only material to be had that they can't bore through, but they exhibit a wonderful amount of judgment and ingenuity in finding seams and needle-holes.

None of us, upon our departure for this country, had thought of reserving a place in our catalogue of Northern miseries for mosquitoes, although aware of their existence to a certain extent. After being subjected to their persecutions in all portions of the United States and in the tropics, we did not dream of experiencing any great inconvenience from the few lank, frozen specimens this country might afford; but, alas! we knew little of what we had to contend with. A country that for eight months out of the year is frozen solid and buried in snow, we little thought would be congenial to these insects. But, if plenty of water is all that is necessary to their existence, they have it here. The tundra is covered with pools and small lakes, formed by the melting snow; and the ground, being frozen solid a few inches below the surface, refuses to absorb the moisture, so the pools remain until evaporated by the snow, or frozen up by the succeeding winter. Ordinarily, the Tchutchus informed us, the tides affect the current of the river as high up as this point, but at this season of the year there was such a volume of water rolling towards the sea that the effect, if any, was not perceptible. We, however, anticipated much trouble from them lower down.

Harder and party rejoined us that evening, July 4th, with five deer he had procured up the Baillee. They had given chase to another with their carbass while coming down, but failed to get it. Ivan, who accompanied Harder, brought me a specimen of the stone that the natives claim colors the water of the Baillee. This I immediately recognized to be "asbestos," of a very fine quality. We also found many specimens of copper ore at the foot of Oochostika Bluff. They were very rich in the metal.

CHAPTER XXVIII.

From Ochostika.—Nature of the River.—Dispatching Message.—Tchikiowa.—Russian Relics.—Bears.—Mikhael Ivanitch.—Krasnia River.—Phillepaeos.—Bolshoi Osero.—Telegraph Bluff.—Leaving Yourts.—Raft Ashore.—Deer.—Smith's Departure.—Chimcha Mountain.—Last of the Raft.—Ticklish Position.—The Blue Boat.—Smith's Indignation and Story.—Tchuctchus breaking open Camp.—Devastation.—Pleasant Sail.—Camp Macrae.—Dismal Locality.—Currants.—Remains of Houses.—Tchuctchu Graves.—Musquitoes.—Reduced Circumstances.—Clubbing and Spearing Wild Geese.—Mac on a Wild-goose Chase.—Goose-spears.—Geese not Geese.—Priest's Arrival.—Buying Converts.—Expedition to the Tchuctchus.—Macrae's Reception.—Okakrae.—Drinking Liniment.—Building the Hut.—Tchuctchu Idea of Swimmers.—Our Revolvers.—Tchuctchus: Appearance, Language, Character, Customs, Religion, etc.—Killing the Aged.—Spartan Heroism.—Story of the old Chief.—Shaman's Jugglery.—Weapons of Offense and Defense.—Towing Boats.—Smoking.—Strange and Economical Pipes.—Eating Nicotine.—Return of Priest.—Instructions to Koschevin.—Non-arrival of Vessels.—Without Food and Raiment.

WE left Ochostika July 15th, but, after drifting ten versts, were obliged to tie up on account of a strong wind that detained us a day and a half. For twenty versts below the deserted settlement the river runs due south magnetic, and contains a number of islands. The bluffs retire inland on the right bank, and the country is low and marshy—so much so that we had difficulty in selecting a suitable place for the next yourt, which we finally landed upon a small knoll on the right bank, about twenty-five versts below the last. Here Macrae and Harder remained with five men to erect it, and the rest of us pushed on with the raft, expecting they would overtake us with their carbass before we could reach Tchikiowa Bluff, where we intended to land another. Shortly after leaving "Mound Yourt," which bears S. 20° E. from Ochostika, Yandenkow overtook us, bound for the mouth of the river in a bidera, and, thinking the vessel might have arrived, we gave him letters to be delivered, telling our whereabouts, what doing, and when we expected to reach that point.

We encountered so many strong winds that we did not

reach Tchikiowa until night, July 8th, during which time we grounded, and with great difficulty extricated ourselves. Tchikiowa is the name given to a bluff where a range of low hills terminate on the right bank of the river. On top of this bluff was once a Russian settlement, the sites of two houses being still distinguishable, and there are two rude wooden crosses still standing. These must have been erected a great many years ago, for none of the present inhabitants have any recollection of the time when the Russians were on this part of the river. One old man, upward of sixty years of age, told me they were erected before his birth. Just above the bluff a stream of water enters into the Anadyr, which we at first thought was a tributary, but this afterward proved to be a protok, which leaves the river a short distance below Oochostika, and does not rejoin it for fifty versts. Our last yurt had therefore been left upon an island. We landed two houses at Tchikiowa, one to be erected on the hill, and the other to be reserved for future use.

Macrae and party did not overtake us as expected, so we started on, following a course E. 20° S. for about twenty versts, winding about among a number of large islands, and scaring up large quantities of wild geese. We then arrived at the mouth of a large stream flowing from the south, which we supposed to be the Krasnia, or "Red River." From Tchikiowa to this point the southerly bank is very low and marshy (possibly another large island). The north bank all the way below the Baillie is a continued rolling tundra, dotted with small lakes and ponds. On both banks small willows grow, together with a good deal of brushwood, but none of them attain to the magnitude of trees.

On this portion of the river two black bears were seen, but they scampered from the shore before we could get a shot at them. These people have a very superstitious dread of bears. As Smith was shouting at the animals we saw while they were running off, the men begged him to stop, otherwise some day he would be devoured by one of the creatures. They, in speaking of them, rarely use the word "midvait" (bear), but call them "Mikhael Ivanitch," which means Michael, son of John. Why this name was selected I don't know, but they speak of him as they would of a human being.

The large stream we saw coming from the south proved to be the Krasnia, or rather one of its mouths, for one verst farther, at 6.30 P.M., July 9th, we struck the main stream, which was at least a verst in width.

Mr. Phillepaeos, a Russian gentleman who started for the mouth of the Anadyr in the winter of 1862, upon reaching Tchikiowa was told that if he advanced below the Krasnia River he and his party would be killed by the Tchutchus. This prevented him from going farther in that direction, but from Tchikiowa he took a southeast course to a large lake called Bolshoi Osero, about one day's journey distant. In this lake the Krasnia has its source, and, though a short river, a large volume of water flows through its channels. The east bank for about ten versts above its mouth, which distance we could see from our raft, is a high bluff, rising into hills as it recedes from the river, while the west is low swamp land. Just below the mouth, on the eastern shore, we left another yourt, with some jerked meat, for Macrae's party, erecting a tripod of the longest logs to designate the spot.

From the mouth of the Krasnia the Anadyr flows E.N.E. about twenty versts between high banks, and is deep and straight comparatively. In many places we could not get bottom with our fourteen-fathom line.

We left the Krasnia at 1 A.M., July 10th, but, it being flood tide, our progress was slow. At 5.30 P.M. we came to a high rocky promontory on the right bank, at the foot of which a solitary white birch-tree grows. This I at once recognized to be "Telegraph Bluff," from Kennan's description of it, and was the spot selected by him as being most suitable for stretching a wire across the river. The opposite bank is a rolling tundra, upon which we left another yourt.

Upon returning to our raft at this place we found that the tide had receded and left it high and dry. By dint of levers and half an hour's work, we once more got afloat. Our raft now consisted of but three huts, and we were beginning to be a little crowded for space. Thirty-four hours were consumed in making the next twenty-five versts, since we could only travel with the ebb tide, and, besides, a strong wind forced us to tie up for a portion of the time.

While preparing dinner on shore a wild deer ran within twenty feet of the fire. Musquitoes were tormenting him so much that he did not see us until within that distance; he then wheeled and ran off before we could get a shot.

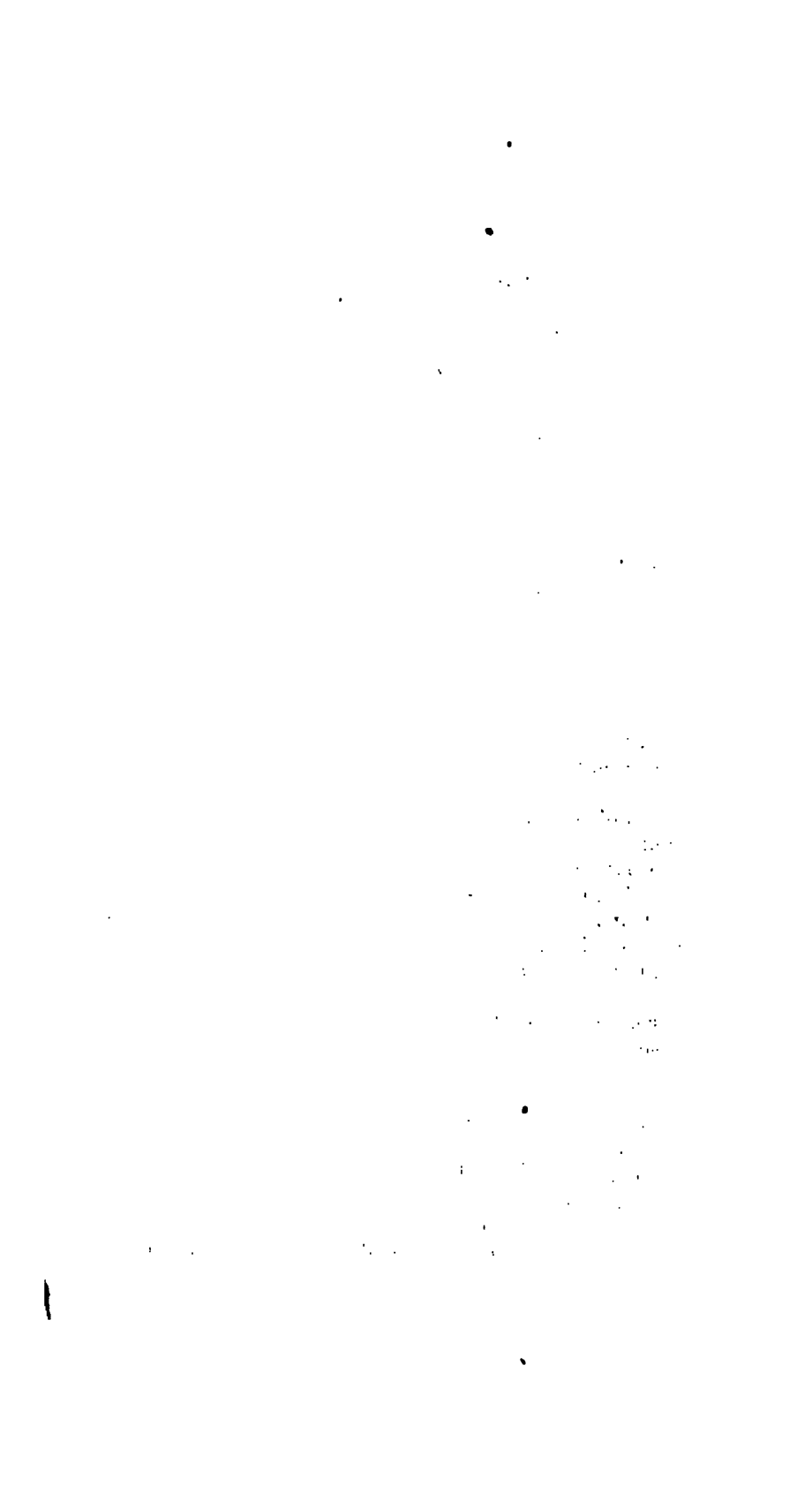
From Telegraph Bluff the river flows near due east by the compass for twenty-five versts, and then makes a bend to the south of about forty-five versts. By crossing this tundra instead of following the curve of the river, twenty versts may be saved in winter travel. On the west side of this curve we landed one hut, and floated the remaining two around to the opposite side. Here Smith left us in his vetka, and started for Camp Macrae, about twenty versts distant, for the purpose of bringing up the whale-boat to meet us, our carbass not being large enough to carry ourselves and baggage.

On the southern bank of the river opposite this place is a dome-like peak about one thousand feet in height, to which Kennan gave the name of Chimcha Mountain. This means "Near" Mountain in the Tchutchu language. He gave it this name because, while passing here in his search for Macrae's camp, late at night, nearly frozen and worn out, whenever he inquired of his Tchutchu guide where the camp lay, the only reply he could get was chimcha.

After landing one yourt the tide began to flow, and a strong wind sprang up, making it impossible for us to proceed with the other. Being anxious to reach the camp, we loaded all we could in our carbass, and, taking the dogs, pushed on. The boat was so loaded down that we with difficulty crossed the river in the rough water. My own position, perched up on the top of the load, was any thing but agreeable; the slightest movement from one side to the other caused the boat nearly to capsize. At length we found it impossible to continue, and were just on the point of landing, when the blue boat made its appearance, sailing up around a bend in the river below.

One glance at Smith's face was all that was necessary. No ships yet, consequently no food. But this was not all, nor the worst of it, in his estimation. The first words he uttered upon coming up were, "Confound these bug-eating Tchutchus! I wish I had some of them here. I would drop them overboard quicker than a bluefish'll bite."









Why, what's wrong?" I asked.

There's lots wrong. You know, captain, when we left camp last winter with Mr. Kennan, this boat was left be-, and she was all right; there wasn't any thing the matter with her at all. But when I got down there last night, and every thing knocked higher than Minot's Ledge at-house. Some of those miserable 'skallywags,' that our axe and spade last winter, had broken open our and carried off every thing they wanted, and what they 't want they left adrift all over the ground. But what me madder than all was when I went to get the 'blue' ready to come up with. Some of the heathens had carried off the spreet-pole and centre-board rod, and then they 'r't satisfied, but had to go to work and break off the rud-pintles, so I had to steer her all the way up with this oar. pe some of their deer'll run off and capsize their sleds, stick that centre-board rod through one of their gizzards. I guess they'll get sick of breaking open houses, because d a jug of liniment good for freezes that I left behind, it's gone too. I hope some of them will think it's Amer-whisky and drink it, because it's got a lot of sulphuric, and sugar of lead, and such stuff in it; and they carried off a can of arsenic, too, that Mr. Macrae had for stuffing s."

We were glad to find, however, that the "blue" boat had gained no more injury, and, having transferred our baggage and the dogs to her, Smith and I started on, leaving the ves to bring the other yourt and the remainder of the page with the next ebb tide.

was beautiful sailing, and particularly refreshing after slow raft journey. Smith was in his element, being a ral-born seaman, and during the trip relieved the time recounting his experiences off Cape Cod, occasionally interrupting his narrative to point out different spots where procured drift-logs for winter fuel, and to construct their with the previous fall. Above the mouth of the Krasnia found but little drift-wood, but below that point, in some es, the shores were covered. From this fact we judged stream to be better wooded than the Anadyr.

At 4.30 A.M., July 13th, we turned in under the lower side

of a long, narrow sand-spit, making out into the river from the northern shore, and beached the boat opposite Macrae's hut. It was a sorry-looking place. Dried and withered pickles strewed the ground outside, and three barrels of beef and pork that had been left behind were chopped open, and what was left of the contents distributed about over the sand. The pit inside of the house was partially filled with water, on which floated six or eight United States army blankets, torn and partially rotted; and even some pulu mattresses had been ripped open by the natives in search of spoil. The blankets were new and good when left behind, but I presume the natives were afraid to take them for fear of their being recognized afterward.

This spit must have been a dismal place in the winter for a habitation. It had been used on some former occasion by the Tchuctchus. The sites of two or three houses were still to be seen, and half a dozen piles of weather-beaten, moss-covered deer-horns indicated the spots where the remains of some of the former inhabitants had been buried and the ashes deposited. The Tchuctchus usually burn their dead.

But I was most surprised at finding a large patch of red and white currant bushes in full bloom. These were the only ones we had seen or heard of in the country. At this point the Anadyr is more than a mile in width, and very deep in the channel, which, however, is very winding.

During the day the other yourt arrived, and on the following afternoon Macrae and party joined us, having erected all the yourts except the one at the mouth of the Krasnia, which they did not see.

We pitched our tent for temporary use, and immediately commenced the erection of our house. The mosquitoes were abominable, but, fortunately, a strong wind swept the point nearly half the time, during which these insects take shelter in the grass, except as many of them as can crowd on the lee side of one's body, which they know enough to do. We found it necessary to keep our tent constantly choked up with smoke during the day, and before retiring at night it underwent the same process, after which we carefully closed up every crack and hole, but even then they would effect an entrance.

By this time we were out of every thing in the provision line except the beef and pork strewed over the ground. This salt meat was very welcome, but, without bread, tea, or sugar, was rather unpalatable. We kept our horse-hair seine set constantly, and would some days succeed in catching enough fish for two meals, while on others we could catch none at all, and sometimes for days had nothing but the salt meat.

Our party of thirteen healthy eaters soon reduced this stock, when we were left without resource. Fish were very scarce. The salmon, upon which the natives depend chiefly for their livelihood, had not yet begun to ascend the river. Geese were plenty on the tundra lakes, but we had no ammunition, so could not shoot them.

Finally these birds began to "moult" (shed their wing feathers), and were unable to fly, when another resource was opened to us. This moulting occurs just after the young are hatched out. During this period the birds congregate on the lakes and ponds, where they can take refuge from foxes. One day one of the men reported having found about one hundred of these birds on a small lake two or three miles distant, in consequence of which we all turned out in force to go "on a wild-goose chase." We knew that as soon as we approached they would take to the water, and then it would be necessary to drive them ashore.

Taking two vetkas, our dogs, and a couple of goose-spears, we armed ourselves with good stout sticks and started out. As we approached the lake, the tundra was alive with the birds taking to the water. Having selected the best place to drive them, two of the natives launched their vetkas at the opposite end of the pond, and the rest of us crept up to stations as near the landing-point as we could get without frightening the birds back. Our dogs became frantic, and caused us much delay, but we finally secured them in our arms.

When all was ready the vetkas advanced, and the geese, rather than take to the shore, allowed them to approach very near. Then the goose-spears were launched among them, each time fastening into a bird. Then the natives would paddle up, and, after ringing the bird's neck and tossing it into their vetkas, repeat the operation. These spears are very light shafts about five feet long, and have three barbed points of

iron something like a trident, though they diverge in different directions from the end of the shaft instead of being ranged in a row. In hurling them the native uses a stick about eighteen inches long, one end of which he holds in his hand, having a circular hole to put the thumb through, and at the other end is a jog or notch, and pin, upon which the back end of the spear rests in being hurled. When poised, this stick is held horizontally over the right shoulder, and the shaft, with the back end resting against the notch, extends forward along the stick, steadied between the thumb and fore finger. The advantage of the stick is the leverage it affords, the shaft being hurled from the notch at the farther end.

At length the flock headed for shore, closely pushed by the vetkas. When they all had landed, the sport commenced in earnest. The dogs were first loosened, and then our whole party might have been seen rushing, shouting, and knocking right and left among the birds, who were heading for another pond near by. We only secured twenty this time, but followed them up, and by another drive killed thirty-eight more; these, with two that were speared, made sixty in all—a good day's work. Geese are no "geese," in the common acceptance of that word; they have more of the opossum in their composition. Several times birds that were knocked over and supposed to be killed, as soon as the pursuer had passed jumped up and started off in another direction, and made their escape. We had several tight races, and were frequently beaten, but one that Mac had with a full-grown gander eclipsed all the others. The bird, with neck stretched forward and flapping wings, was going for dear life, bounding over the tundra at a desperate rate, followed by Mac, who, with his uplifted stick in one hand and musquito-net in the other, was making fearful strides to close up the gap of four feet that intervened between him and his game. They were closely matched, and the race was long, but inch by inch the space was diminished, and the deadly stick was just about descending upon the neck of the poor goose, when an unfortunate bunch of grass on the tundra caught Mac's toe, completely upsetting his calculations as well as body, and plunging him headlong into a small pool of water.

Sixty geese, one would think, would last a long time, but at the end of three days not a trace of them was left, nor could we catch any more, for every goose in the neighborhood ran off after our big raid on them. Unfortunately, just after our "chase" the Markova priest arrived with several men, who lent their assistance most willingly to dispose of the surplusage of goose-meat. The priest, having availed himself of our presence at the mouth of the river, was on a mission to the Tchutchus to try and hire some of them to be baptized, and I afterward learned was quite successful, though one convert refused to go into the river to be baptized without a larger present than he had already received. He was not a believer in total immersion.

Much to our surprise, none of Macrae's old Tchutchu friends came to the camp, though they had undoubtedly heard of his return. We were continually hoping they would do so, as we were desirous of procuring deer-meat from them; but, as they did not come, we decided to go to them, and on the 28th Macrae left with the blue boat and four of the men. After an absence of four days he returned with six deer, and the welcome intelligence that we could procure all we wanted in future.

Upon Macrae's arrival at the settlement no one came to meet him, as they did on former occasions, but, when they saw his boat approaching, the natives all walked off, leaving him. This strange and unwelcome proceeding astonished Macrae very much, and he did not know what to think of it until Okakrae, with whom he had traveled during the winter, ventured to approach him. In answer to Macrae's inquiry as to the meaning of their actions, Okakrae explained that his people were afraid they would be suspected of having broken into the hut, and that Macrae would shoot them. The other natives, seeing Okakrae was not killed on the spot, began to gather around, and, upon learning that his party's mission was a peaceable one, extended every kind of hospitality to Macrae.

Okakrae stated that some of the Northern-coast Tchutchus had entered the cabin on their return from their winter quarters in the mountains south of the Anadyr, and that two of them drank something they thought was liquor, one

of whom would not live. From their description of the jug Macrae is satisfied they drank some of the liniment, but could learn nothing whatever of the arsenic.

A few days after reaching the sand-spit our house was completed, bunks erected, and what was left of Macrae's old stove put up to cook with. In making the roof we used the sods that had been piled around the old cabin. Musquito netting was stretched over the windows, and for several days we kept the house full of smoke, to try and rid the place of these pests; but every thing failed. Every hole had been chinked with moss, and we were at a complete loss to know where the insects came from. At last, by holding a light to the sod roofing, we found the spaces between the split-logs swarming with myriads of the insects, just beginning to fly. Our only solution of the mystery was, that they had deposited their eggs the previous summer on the sods used for roofing, and that these were now beginning to hatch out. They could not possibly have worked their way through the covering of the hut.

After Macrae's visit the Tchutchus visited us frequently, sometimes bringing us meat, but at length they ceased to do so altogether. By this time salmon began to run in sufficient quantities to sustain our party. Nothing seemed to please the Tchutchus as much as our swimming. While in the water they used to crowd along the bank, men, women, and children, to watch us. When one of us dove beneath the surface, and reappeared all right, they would all exclaim simultaneously "Huk-ho!" their exclamation of astonishment. One old fellow thought he "would dislike to be at war with such people, lest they should dive down and cut holes in the bottoms of his skin boats, and in that manner drown them all."

Our revolvers, also, were a great curiosity to them, they supposing we could shoot all day without reloading. We took no pains to dispossess them of this notion.

The Tchutchus are very much like the Koraks in appearance and in many of their customs. They also shave the tops of their heads, and the women tattoo their faces. Their worship is carried on through the agency of "shamans," and dogs and deer are used in sacrifices. They, like the Koraks,

also of two classes—the deer or wandering men, and the led, who subsist on whale, seal, walrus, and any thing y can get. Each man has as many wives as he can support, and is at liberty to do with them as he sees fit, whether sell, trade, discard altogether, or even to kill them, as is sometimes the case. They have little regard for life, and it is regular custom with them to kill the aged and infirm of their tribe, also any others who are unable to support themselves. These they lance, stone to death, or choke with seal-lungs, often leaving the choice to the victim, and afterwards, if the person be one for whom they had much respect, they burn the body, otherwise they leave it for wolves and other animals to devour. But, with all their barbarous customs, they appear to be an intelligent race, and have many noble traits.

One incident of an old Tchuctchu chief, who lived years ago, was told me by an old Chuansee, and is worth recording among the noblest deeds of mankind. It smacks of true Spartan heroism.

It was during the prevalence of the small-pox, cholera, or one of those epidemics that have proven so disastrous to mankind the world over. The Tchuctchus were dying off very rapidly, and the shamans all over the country were employed night and day trying to appease the wrath of the great evil spirit. Dogs were sacrificed by the score, and the snow was reddened by their blood about every habitation; death was king, and its ravages increased daily. Failing in all their incantations, the shamans assembled from all parts of the country, and held a grand consultation to decide on the next step to be taken. They decided that the great Spirit was very much wroth, and that nothing but more and continued sacrifices would appease him. Again blood flowed in streams; hundreds of deer were led to the altar to be slain. From morning to night, day after day, the elements resounded with the noise of drums, and the shrieking and howling of the madmen. But this did not suffice. Their great tribe was melting away like the snow in spring, and soon there would be none left to relate their sufferings to posterity. At this stage the shamans again held a consultation, and, after a long and solemn delibera-

tion, decided that nothing short of the death of the old chief would propitiate the evil spirit. Their word was law, and the edict fell like a thunderbolt upon the tribe. The old chief was loved by all, and many offered to be sacrificed in his stead, but the wise doctors said no other sacrifice would be sufficient atonement. Then the tribe resolved to be swept away by the epidemic rather than pay the price demanded for their safety. At this stage the old chief assembled his people together, and begged them to accept his life, which he would willingly give for their welfare, but no one could be found who would make the fatal thrust. Then the old chief called his only son to him—a mere lad—and, handing him his own spear, placed the point opposite his heart, and commanded the boy to thrust. This he refused to do until threatened by his father's curse, when the stroke was made, and a wail arose throughout the whole land. Shortly afterward the epidemic subsided, which, of course, was attributed to the death of the old chief.

Some of these shamans are quite expert jugglers, and perform tricks in the open air which defy detection. Among the most common are to cut off their tongues and thrust knives into different portions of their bodies. They are looked upon and dreaded as almost supernatural beings by the neighboring tribes. I had heard of their feats of legerdemain during all my travels, even as far south as the Amoor, and always wished to witness some of them, but I never had the good fortune to do so.

The Tchutchus are a bold, independent, and warlike people, and are the dread of the neighboring tribes, but they have a perfect horror of fire-arms. Their weapons of offense consist of spears, bows, and slings, and for defense they wear a large double garment of buckskin stuffed with sand as a protection against the spears and arrows of their enemies. Like the Koraks, they are expert athletes—fond of running, jumping, and wrestling, and in every respect are so like that people that it is hard to distinguish one from the other, though their language is somewhat different. Those whom we have met so far belong to the reindeer or nomadic class. For winter travel they employ the same kinds of sleds and snow-shoes as the wandering Koraks. In summer they use

h the bidera and bidarka, which I have already described. While traveling with their boats against the current of a stream or along the sea-beach, they put a long seal-thong fore and employ dogs for towing. They are great smokers, and all these natives, and use a very curious-looking pipe, manufactured more with a view to economy than any thing else. The bowl is generally of lead or brass, and not larger than a thimble, while the stem is sometimes larger than a man's arm. The stems are hollow, having small doors in the bottom, secured in their places by pitch, which can be opened at pleasure. These are made so on account of the scarcity of tobacco, which they always use cut up with an equal quantity of soft wood or bark. In smoking they stuff the large, hollow stem with fine wood shavings, which in time become saturated with nicotine, and are then smoked as a substitute for tobacco. Some of the men have quite a passion for nicotine, and eat all of it they can obtain, sometimes even trading with the Anadyrsk people for it.

On the 1st of August the priest started back up the river, and, there being yet no signs of the ships, the desire to see which induced the natives to accompany us, most of them were anxious to return with him, having concluded that the ships were not coming at all; besides, they wished to return home to secure a supply of fish and deer for winter use. I, however, persuaded four of them to remain, and sent Raschevin, the Cossack, instructions by the remainder to forward ten or twelve dog-sleds for us as soon as the winter roads should open, should we not return previously.

We ourselves began to entertain some slight fears at the non-arrival of the vessel, not knowing but that some accident might have befallen her, in which case our position would not be an enviable one. It was our intention to live along from head to mouth until there should be no longer a possibility of a vessel entering the river with safety, and then work our way up to Oochostika if possible. There we were sure of a comfortable reception and plenty to eat—such as it might be, and could await the arrival of the Anadyrsk sleds. Salmon are yet very scarce, and our hair net was getting so old that it did not retain more than one out of three fish that became tangled in its meshes, so we were once more reduced to

short allowances. Upon the neighboring tundra we found quantities of salmon and whortleberries, which helped us out somewhat.

Ours was a dilapidated party in every respect. Our underclothing, all put together, would hardly have covered the nakedness of one man, and our buckskins, though perfectly whole, were much soiled from constant use. It is true there was plenty of water near, but also there were plenty of musquitoes—so many, in fact, that it would have been unpleasant, to say the least, to wash one's *only* suit in their presence.

CHAPTER XXIX.

at Camp Macrae.—Surprise.—News of Steamer Wright.—Labourne and Whymper.—Excursion to the Steamer.—Salute.—First Sight of a vessel.—Dogs.—Awe-stricken.—Anadyr Bay and Gulf.—Golden Gate Bay.—Voyage to Plover Bay.—The Bay.—Tchutchu Settlement.—Lightingale and Rutgers.—Station-building.—North Coast Natives.—Abitations.—Bideras.—Food.—Traders.—Hunting the Walrus.—A Tchutchu Gathering.—Preparing to Kill an Old Man.—Unconcern.—An-Kum's Explanation.—Modes of Killing.—Knowledge of Anatomy.—Active Notion of the Custom.—River Steamers.—Arrival of Barque Gold-1 Gate.—Departure for the Anadyr.—Steamer Wade.—Gate aground.—Choosing a Site.—Wade at Work.—Approaching Winter.—Discharging.—Barque afloat again.—Loss of the Scow.—Wade River.—Prepared for Winter.—First Snow.—Ice forming.—Attempted Escape of the Barque.—Aground again.—Heavy Ice.—Wade in Danger.—Frozen up.—Last rip of the Season.—Breaking our way Ashore.—Wade beached by the ice.—Damage sustained.—Gate Wrecked.—Flight of the Crew.—Dangerous Passage.—Alarming State of Affairs.—Volunteers to the Wreck.—Saving the Food.—Gloomy Prospects.—A valuable Acquisition.—Quarters for the Crew.—Station-building.—Farnam's Gash.—Library.—Our quarters.—Eager for the Fray.—Reducing Rations.—Station Regulations.—Details.—Observations.—Our Guests.—Former Residents.

WHILE at Camp Macrae we used to spend as much of our time as possible sleeping. By so doing we did not require as many meals a day. Upon awaking, our first movement was to step to the door of the hut and scan the river below for the sign of the expected vessel. In this we had learned to expect nothing, and, consequently, were not disappointed, when we would set the seine, and throw ourselves down on the gravelly beach to watch for our breakfast to come along. We might get caught, though the long delay often made it dinner, and in one or two cases supper.

On these last-mentioned days we contented ourselves (from necessity) with one meal. The fish caught, a fire was built, a fry-pan filled with water, and the fish thrown in to fry, boiled, stewed, or whatever name suits the process best, and then, without any accompaniments whatever, we masticated and swallowed it. We did not use to call it "eating," for that word suggests something of enjoyment, and these periodical

operations of ours were utterly without any thing of the kind; they were undergone only from necessity. Before retiring at night we would again scan the river.

So the days rolled on, each one lessening the possibility of accomplishing any thing toward the construction of the line that year (for the summer lost was the year lost), and each one increasing our doubts and fears as to the safety of the vessel destined for that point.

On the night of the 14th of August we were more than ordinarily dubious, and retired to our bunks in not the best spirits. Early the next morning I was aroused by loud talking, and, upon opening my eyes, found the hut full of strangers, and Americans too. Mr. Labourne, the chief interpreter of the expedition, was the only one I had ever seen before, but acquaintances were rapidly made, and during the following half hour I presume there was more information received and given than ever before exchanged hands in the same length of time. The party consisted of Labourne, Mr. Frederick Whymper, artist, and the second officer of the telegraph steamer Wright, with a boat's crew of sailors. The Wright lay about thirty miles below, at the entrance of Anadyr Bay, where she had come to get a supply of coal left the previous year. Colonel Bulkley, the engineer-in-chief of the expedition, was on board, bound for Plover Bay, or Port Providence, as it is often called, at which place the different vessels were to rendezvous. He had no idea of finding any body at the mouth of the Anadyr, but sent this party up merely to deposit a letter, provided any one should come down.

After eating a "square" meal of cold meat, hard bread and molasses, the blue boat was manned by our natives, and, leaving Harder behind to guard camp, we joined our friends on their return to the steamer. Our natives were as much interested as we; they had never seen either a steamer or large vessel of any kind, and were all on the *qui vive*. The rain fell in torrents, but this we did not mind, and, after a four-hours' sail, the black hulk of the Wright loomed up before us in the mist. A salute from one of the ship's cannon welcomed us on our approach, and shortly afterward we were surrounded by earnest and curious friends, scanning our water-soaked buckskins, and asking innumerable questions.

All the coal had been taken aboard, and the Wright was ready to sail when we came up. As it would be necessary for me to go to Plover Bay to procure men, material, and provision for my district, I accompanied Colonel Bulkley, by his invitation, but not without first leaving a good supply of substantial provisions behind.

It was amusing to watch our natives. They were perfectly beside themselves with astonishment. The paint and gilt-work about the cabins, together with the machinery, large masts, and every thing about the vessel, elicited continual exclamations of surprise; and the shrill sound of the steam-whistle caused them to nearly jump overboard. There were two little dogs on board, one of which was the homeliest conceivable specimen of a rat terrier, dressed in a gray jacket, and trained to perform various tricks. For a long time the natives watched him with the greatest curiosity, under the impression all the time that it was a cat, which animal they had heard of, but never seen. Upon learning it was a dog, they were dumbfounded. While watching the performances of the rat terrier, "Flora," a sleek, glossy, black-and-tan terrier jumped in their midst, when they all started back shuddering. Upon being told that this one was also a dog, they could hardly believe their ears.

"Well, Nikolai," I asked of one of them, "what do you think of the steamer?"

"Oh, sir, I don't know," he replied; and so it was with the whole of them. They were so confused by the strange sights that—Macrae afterward told me—they did not recover their senses thoroughly for several days.

Six miles below Camp Macrae the Anadyr widens out into a large bay or lake of more than twenty miles in extent, into which, at the southern end, the River Arnora, of which I have previously spoken, empties. Below this bay the shores again approach each other, and are shortly afterward joined by another bay on the northern side, to which we afterward gave the name of Golden Gate Bay. Three or four miles below this lies "Anadyr Gulf," an arm of Behring Sea. At the entrance of Golden Gate Bay the steamer Wright lay when we joined her.

As soon as Macrae's stores were lowered into his boat the

propeller was put in motion, and we rapidly emerged into the open sea. We left the Anadyr on the 16th of August, and arrived at Plover Bay on the 18th. The weather was calm and beautiful, and our trip most delightful, particularly for me, after my long exile. For nearly the whole distance we kept within plain view of the northern coast, along which, a few versts inland, extends a monotonous range of moderately high mountains, with a stretch of rolling tundra land intervening between it and the sea-shore.

As we approached Plover Bay these mountains gradually extended down to the coast, and terminated in high, bold cliffs overhanging the sea. The bay is buried in the very heart of these mountains, winding back from the sea for about twenty miles, with an average width of two miles. Its entrance is nearly closed by a long, narrow sand-spit, extending from the eastern cape, which affords very secure anchorage to vessels lying inside. On this spit was quite an extensive Tchutchu settlement, containing over a dozen habitations. These were some of the Northern-coast men that had broken into Macrae's camp. The neighboring mountains were high, steep, and rugged, formed of loose boulders, and of jagged masses of rock of every conceivable shape and size, and were so barren in the immediate vicinity of the bay that, except in few places, even the hardy mosses that abound in other portions of the country could not take root.

Upon entering the bay we found two of the Company's vessels awaiting orders—the ship *Nightingale* and the barque *Rutgers*. The barque *Golden Gate*, which was destined more particularly for the Anadyr, did not arrive until two weeks afterward, consequently I was detained much longer than would otherwise have been necessary. Plover Bay is situated at the extremity of a large cape. Across this cape it was decided to stretch a land wire of about forty miles in extent, uniting the two cables—one across Behring Straits, and the other across Anadyr Gulf. Here a station was to be erected, and a party left during the following winter; and, as lumber had been brought for the purpose, shortly after the Wright's arrival the fleet moved to the other end of the bay to select a site for the building and commence the construction. A large number of men had been brought up from

San Francisco to be landed at different parts along the route of the line, all of whom were put ashore to assist at the work; and in a short time the chosen site was perfectly alive with busy groups, some carrying stones with which to construct foundations, others digging sods, while still others carried lumber up from the water's edge to supply the carpenters.

In the mean time we made several trips to the mouth of the bay with the Wright to look for the Golden Gate, and had various opportunities of visiting the Tchutchu settlement. These natives were much the same as those I have already described, though the sterility of the neighboring country and total absence of drift-wood force them to rely upon other sources for material for their habitations and boats. Their tents are made of the skins of the walrus, seal, or deer, and are generally of an oval shape, from the fact that the inhabitants can not procure straight wooden poles for the frame, but employ the curved bones of whales instead.

For fuel they burn blubber altogether. They use the "bidera," or large skin-boats, covered generally with walrus-hide, the frame of which is sometimes also made of bone. These boats are frequently used in quite rough weather at sea, and, to prevent their capsizing, as well as to buoy them up, sealskins inflated with air are attached to their sides. They are propelled with short, single-bladed paddles. Their winter costume is of deerskins, with sealskin boots, but in summer many of them wear garments made of the skins of birds prepared with the feathers on and sewed together in the proper shape. For wet weather a kind of overshirt is made of fish-skins or the intestines of the whale or walrus, with a hood of the same material. These garments are frequently worn in dry weather also. This same material is also used by the Russianized natives throughout Eastern Siberia for windows, it being translucent, and in many respects better than cakes of ice, which they would otherwise have to use, though scaled fish-skins are also frequently applied to the same purpose.

Whale, seal, and walrus constitute almost their only food, and, as these animals abound in this locality, the natives are rarely in destitute circumstances. Besides, they carry on quite a thriving trade with whalers and traders who annual-

ly visit their coast, exchanging walrus tusks, whalebone, and blubber for liquor, guns, implements of various kinds, and whatever they wish for.

They employ quite an ingenious mode for catching the walrus in summer, though they are not always successful. During one of our trips to the sand-spit I had the good fortune to witness this process. While visiting among the tents, my attention was called to several large black animals that occasionally came to the surface of the water about half a mile from shore seaward, and, with a big splashing, immediately disappeared from sight. As soon as the natives saw them they launched their bideras, tossing into each one half a dozen bone-headed harpoons, to each of which was attached a long seal-thong, fastened at the other end to an inflated sealskin. Then they each took a long flat slab of black whalebone, and crowding as many men into a boat as it could carry, paddled rapidly to the locality of the walruses. In the bow of each boat stood a native with one of the harpoons poised ready to hurl. As soon as they reached the locality, half the men dropped their paddles, and, seizing the whalebone slabs, began to pound the water, causing a loud, cracking sound. This was to excite the curiosity of the animals and make them come to the surface again. As soon as one appeared, the boats paddled toward the locality in which he had been last seen, about which they congregated, and continued to pound until the animal at length arose within darting distance of one of the boats, and became transfixed with a harpoon; then the line and buoy fastened to it were at once thrown overboard. The harpoons are so fixed that when once firmly planted in an animal they will not draw out. When the animal was once struck, it was comparatively easy to fix a number of harpoons in him, as the floating buoy indicated his whereabouts. In a few minutes there were so many bladders attached to the beast that he could no longer dive beneath the surface; then one of the boats paddled up and killed him with a lance. They secured two others on this occasion. The same method is employed for catching whales, with the exception of pounding on the water, though it generally requires a very large number of inflated skins to buoy the huge beast up.



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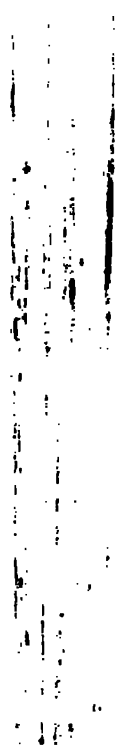
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ring one of our visits to the lower end of the bay, as the
er lay at anchor, we saw quite a large group of natives
bled at a spot on the rugged mountain-side about half
e back of the village, and, being curious to know what
were about, a boat was lowered and a party of us started
ore. We had to make an ascent of a few hundred feet
the loose, jagged fragments of rock, and it was not with-
ome difficulty that we reached the place. On all sides,
red over the rocks, were crushed human skulls and oth-
es, and we at once decided that this was the spot where
kill the old and disabled of their tribe. Our first im-
on was that we were about to witness one of these acts
barity, and I confess to a feeling of reluctance and sick-
edness as we approached the group. But their lively
ring and occasional laughter disarmed our suspicions.
re were about forty persons present, from old men and
n down to mere babes, all of whom appeared to be in
est of spirits. In their midst, upon a small patch of
ground, was an oblong ring of stones about six feet in
i, by the side of which lay a reindeer freshly killed,
e portions of which, together with handfuls of tobacco,
being sprinkled over the stones by half a dozen hideous
mens of womankind, all talking at one time, and occa-
ly bursting out into laughter. We then thought they
about to make an offering to their gods, and, calling
Nan-Kum, one of the natives who had learned to speak
e English from intercourse with whalers and traders,
gan to question him about it. Pointing to one in the
, he replied, "See old man—no got eyes—byme-by kill
Looking where he pointed, we beheld an old blind
seated upon a rock among the other natives, but his
ore an expression of such perfect calmness and uncon-
that I looked elsewhere to find the victim, thinking I
mistaken in the person pointed to. No one was show-
m any kind of attention, neither was there any thing in
pearance, nor in the actions of his companions, to lead
e suspicion that he was so soon to be ushered into the
world.

ut what for kill um, Nan-Kum?" we replied.

ld man like um. Old man plenty deer. Last year old

man son die. He plenty like um son ; want die too. He want Tchuctchu man kill um. All right. Old man pickinianny no want kill um. All right, no kill um. Byme-by, last month, old man want kill um ; to-day Tchuctchu kill um."

We had some difficulty in making out Nan-Kum's meaning, but at length comprehended that it was by the old man's request they were going to kill him. He had plenty of deer, and was beyond want, but the previous year he had lost his only son, whom he loved very much, since which time life had become a burden to him, and he wanted his tribe to put an end to his existence. The day had been once before fixed upon, but his little grandson begged so piteously that the old man consented to live for his grandson's sake. But he had again changed his mind, and his wishes were now about to be gratified.

In answer to other inquiries, Nan-Kum told us how they killed their victims. If they are persons for whom they have much regard, they first produce insensibility by making them inhale some substance—what I could not learn—and then cause death by opening some of the main arteries and bleeding them. In telling us, Nan-Kum pointed out the different arteries which are sometimes opened, and exhibited a perfect knowledge of human anatomy. The bodies of these persons they always burn. Others they spear or stone to death ; and some they kill by putting a slip-noose about their necks, and dragging them over the rocky mountain-side. These last are left lying among the rocks to rot or be devoured by the famished dogs of the settlement, aided perhaps by wolves and bears.

Nan-Kum was unable to comprehend our astonishment and disapproval of the barbarous practice.

"It's bad, Nan-Kum—very bad," one of the party said.

"No bad," he replied. "Tchuctchu plenty like um. All same every fellow. Byme-by me get old, kill um too. All same."

Shortly after we reached the spot, we perceived a kind of reluctance on the part of the natives to proceed, and finally they discontinued their preparations altogether. We knew our presence was the cause of this, and, besides, I, for one, was wishing for an excuse to leave, so we took our departure.

an-Kum told me afterward that the old man was not killed after all, as his grandson again induced him to change his mind. It is quite possible they wished to postpone the operation until after the departure of our vessels from the bay.

The *Nightingale*, a fine, large clipper ship belonging to the expedition, had brought up on her decks from San Francisco two small flat-bottomed steamers, one intended for the navigation of the Yukon River in Russian America, and the other for the Anadyr. These were lowered from the ship's deck immediately after Colonel Bulkley's arrival, and the work of fitting up their machinery and building deck-houses commenced.

As before stated, the *Golden Gate* did not arrive until two weeks after our entrance into the bay, and then nearly two weeks more were consumed in transferring and distributing stores, telegraphic material, and implements among the different vessels destined for various points. Finally, by the 15th of September, every thing required for the northern Asiatic district for the coming year was put aboard the *Golden Gate*, including lumber with which to construct a station building; a large scow to assist in unloading, and for transportation; and provisions for nine months for twenty-five men. To this number my party was increased. We could accomplish but little work before the ensuing summer, and more men than these were not needed.

Having no time to lose, as soon as every thing was ready, we took the small steamer *Wade* in tow, and started for our destination. The *Wade* was a small stern-wheel or wheel-arrow boat, as the men called her, about sixty feet in length, and capable of carrying about twenty tons of freight. At the time of our departure from Plover Bay she was ready for use, with the exception of erecting her smoke-stack and fitting the wheel together. This last Mr. Forbes, the engineer, with the assistance of some of the men, effected on the passage over, by taking advantage of calm weather.

On the 19th of September we entered the mouth of the Anadyr, and steered into the small northern or Golden Gate bay, that having been chosen as the most suitable place for finding the end of the cable to be stretched across Anadyr Gulf; but we had only proceeded three or four miles in this

bay when the Gate grounded on a bar. I immediately dispatched Mr. Jared Norton, with a boat and crew, to go to Camp Macrae and notify the party there of our whereabouts, and went with another to select a site for the station, which we found, convenient in every respect, at the mouth of a small river, emptying into the bay five miles from the position of the barque. As soon as the vessel struck the Wade was hauled alongside to have her smoke-stack erected, and in two hours' time she was busily at work trying to tow the Gate off the bar, but had not sufficient power.

Already winter was rapidly approaching, and her "vettes," in the form of freshly fallen snow, were visible on the neighboring hills. Every exertion was made to land our cargo, and allow the Gate to escape before the ice should close in on her. To effect this, all hands were busy late and early, and the little steamer, with the loaded scow in tow, was constantly plying back and forth between the barque and the station, but, owing to some defect in her draught, the distance to be traversed, and the time consumed in loading and discharging, we found it impossible to make more than two trips a day. First the lumber was landed, and, the carpenters being furnished with a plan for the building, the construction commenced immediately.

By the 23d of September every thing was discharged but the coal for fuel and for the use of the steamer, there being no wood within hundreds of miles; and on the following day the Gate was so much lightened, that at high tide, and with the assistance of a strong easterly wind, she swung afloat, and approached a mile nearer the point. This facilitated the discharging very much, but the next day we met with a great misfortune in the loss of our large scow. She had reached the point late the night before, loaded with coal, and, as the men were perfectly worn out, having been hard at work since 3.30 o'clock in the morning, she was anchored at shore with two anchors, to lie until daylight before being discharged. The Wade had also been anchored near by. In the night a strong easterly wind arose, causing either the steamer or scow to drag, when their anchors became foul, and, before any thing could be done, they were swept by a strong tide into seven-fathom water, when the scow found

ed. The next morning we dragged for her, but were unsuccessful, and, time being scarce, discontinued the search for time being. From this time forth every moment of day was taken advantage of, that we might finish discharging, and, besides, I was anxious to make our trip up the Arm, to find winter quarters for the steamer, there being no able spot in Golden Gate Bay or in Wade River, that be the name given to the river entering the bay at the station. To complete the nomenclature of the place, the officers and men of the party christened our new settlement "Bush's Station," a name which could not but appear very inappropriate to a stranger, for there was not a bush growing within miles of the spot.

Much to our relief, on the 1st of October every thing was ashore, and our house about completed, though our supply of lumber was so limited that old boxes had to be knocked to pieces to provide material for building bunks for sleeping.

One of the Gate's boats was at the station, filling her cisterns from a small fresh-water lake on the point, and, being late in the day, Mr. McKenna, the second officer in charge, decided to wait until the next morning before returning to the vessel. We had already had a light fall of snow, and during several nights ice had formed along the water's edge, but in very thin coatings. The next morning, however, the bay was filled with large cakes of it, sweeping back and forth through the entrance of Wade River with a four-knot current. It was evident that winter was upon us, and the vessel had already loosened her sails to make good her escape.

As soon as the tanks were filled we took them in tow of the steamer, and started for the vessel, which was now under way. Our progress was slow, and, when we caught up in the forenoon, we found the Golden Gate again hard aground, that, too, at high tide, so we felt but little hope for her escape. All during high water the little Wade pulled and heaved at her, but without effect, and, it being late, we tied alongside the vessel to make another effort in the morning.

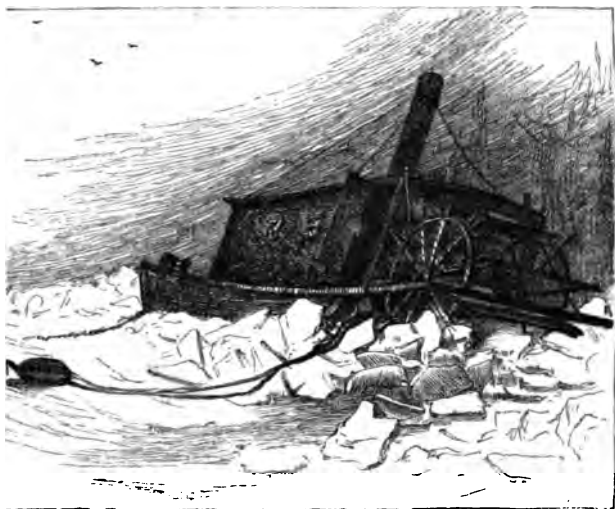
This bay is about ten miles in extent, and, except in every narrow, winding channel, running from Wade River through it, is extremely shallow. It being the first vessel

that had ever entered it, Captain Harding, of the *Gate*, was not familiar with the channel, and winter coming on so suddenly gave him no time to sound it thoroughly. As the tide ebbed the vessel careened, until at low tide she was almost on her beam-ends, so much so that it was impossible for us to lie in the berths on the upper side. During the night I was awakened by a loud grating sound, that continued for hours, the vessel quivering all the time like an aspen leaf, and shortly she almost righted herself, and then fell back with a sound as if nearly every timber in her had broken. Immediately afterward, Captain Ashcomb, of the *Wade*, rushed into the cabin saying that the steamer was sinking. On deck we could barely stand, it was so much inclined. The steamer had first been fastened on the sheltered side of the vessel, but now, by the change of the tide, was exposed to its full force, and was being weighed down by heavy masses of ice crowding upon it; but without great difficulty she was dropped astern, and hauled up on the other side of the *Gate*, where she would be perfectly safe until the next change of tide.

In the morning we found the bay entirely frozen over with ice an inch in thickness, and knowing that, unless we could reach shore with the steamer immediately, she would almost certainly be destroyed by the next heavy tides, we made an attempt to plow our way through to the point, now six miles distant. After half a dozen fruitless efforts, we discovered that the ice was cutting through her hulk. Then the only plan was to reverse the engines, and work our way backward, breaking a passage-way through the ice with the large wheel astern. At this we succeeded much better, and, though it took nearly all day, we at length reached the station in safety.

It was now evident that this was the last trip the *Wade* could make during the season, and, for want of a better place, we immediately commenced preparations for hauling her up on the point. A complete barrier of ice, six feet in height, occasioned by the crowding of the ice-fields upon the beach, was formed all around the shore. Taking advantage of low tides, all hands were put at work with picks and shovels to clear a space through this ice wall, in order to draw up the

er. Posts were firmly planted and purchases rigged, we were just about to commence hauling, when a large sheet of stout ice swept by with such force as to catch the ship and hurl her far up on the beach, twelve feet from the water-line, piling large fragments of ice nearly up to the side of the deck-house. Now she was indeed beached, and more expeditiously than we had expected to effect the result; but the elements were not as gentle in their dealings with the poor Wade as we would have been. Her wheel was badly shattered, but fortunately we had extra arms and men; her hull was cut through in half a dozen places, her machinery was thrown somewhat out of place, but by this last sustained no very great injury. Nothing could be done with her until the following spring.



THE WADE BEACHED BY THE ICE.

We had all kept an eager watch on the Gate, hoping to see her square her sails and glide out of the bay into the open sea, but her leaning position, even at high tide, excluded the possibility of such a thing transpiring. The morning after the Wade was beached, all the boats belonging to the ship were seen leaving the vessel at a great risk, and

picking their way through the drifting ice toward shore. We assembled on the beach to receive them, together with the unwelcome information that the ice had torn open the sides of the vessel, and that she was filled with water, leaving them no alternative but to winter on the point. She had on board but little over two months' supply of provision for her crew, all of which, however, had been secured on the main deck, out of reach of the water. But what was a two months' supply at the commencement of a long arctic winter? I had received a supply barely sufficient to sustain my own party of twenty-five men until the opening of spring, and now, by this calamity, the party was increased to forty-six men, and but a small increase of stores. Even could we save what provision was left on the deck of the vessel, our supplies would hardly carry us more than half way through the winter.

Every man saw at once the necessity of saving every ounce of food, and in a few moments our four boats were manned with volunteers to attempt another passage to the wreck. The ships' boats had been badly pinched and cut on this trip, and required some slight repairing. The passage was particularly dangerous at this time, as, in case of accident, the ice was not strong enough to sustain a man's weight, and the ice-fields were sawing and grinding together at a furious rate, driven back and forth by the tides.

Before starting, each boat was provided with tacks, zinc, and canvas. We anxiously watched their progress as they worked toward the wreck, and before they were half a mile distant every boat was bailing, but we saw each of the four attain the ship in safety. They were all badly damaged, and had to be repaired before attempting the back trip. The return was effected without serious accident, each boat being well laden. By sheathing all the boats with copper brought from the Gate, and taking advantage of tides, several other passages were made, and every thing portable and of much value saved, including the ship's stoves and furniture. Captain Harding did not leave the vessel until every pound of provision was secured, and Mr. Frost, the first officer, with the crew and many of the land party, exerted themselves to the utmost throughout.

We were in daily expectation of seeing the wreck cut to pieces and swept off, but, on the last visit of the boats, they found the ice piled up around her in such quantities as to form a perfect bulwark against the floating ice-fields. The carrier was sufficient to secure her from farther injury until the breaking up of the ice in spring.

Amongst the material received at Plover Bay were five hundred sawed telegraph poles, brought from British Columbia for distribution over the tundra. These I had at first looked upon as almost superfluous, but now they proved invaluable for constructing shelter for the Gate's crew.

Under Mr. Frost's superintendence, in a couple of days a large, comfortable apartment was constructed, thirty-six feet in length by eighteen in width, heaped over with dirt, having good berths for the men ranged around the sides, and the ship's stoves put up for cooking and heating the room. When completed, their quarters were equally as comfortable as our own. The station building was twenty-five feet square, divided into four apartments, with a "loft" above for our light stores. Stoves and berths were put up, and the outer walls made of a double thickness of boards, six inches apart, the intervening space being stuffed with ground moss for warmth. A kind of caché, or store-house, was built outside for our heavy stores, such as beef, pork, molasses. This the men persistently called "Farnam's gash" (caché), Mr. Farnam being the post quartermaster.

At Plover Bay, among other things, I was fortunate in securing about one hundred volumes of poetry, travels, romance, and miscellaneous works for a station library. These were ranged on shelves for general use—Mr. Baxter being librarian—and helped to while away many a long and tedious hour during the following winter.

Large mirrors brought from the ship were suspended in the different apartments, and these, together with chairs, tables, berth curtains, swinging lamps, and various other articles from the same source, decked out our quarters in magnificent style (for this region), and gave the place such a cheerful and comfortable appearance that the men, one and all, were anxious for grim winter to advance with his icy regions and commence his assault.

Now that the present comfort of the party was cared for, our first attention was to the stock of provisions on hand. With the able assistance of Mr. Farnam, the quartermaster, these were overhauled, and a complete inventory made. Together with the ship's supply, we found that, by strict economy, we could sustain the party for six months, but still four months would elapse before we could reasonably expect any assistance from vessels in the spring. Ration tables were made, cutting down each man's allowance to the lowest possible amount, and calculations were made to ascertain the quantity of each article that could be used weekly. In this manner we settled upon a regular bill of fare for each day in the week, which was strictly adhered to, and, though on many days the table was by no means inviting, no grumbling was ever heard among the men, though it was naturally to be expected. Officers and men all fared alike from the commencement, and all, seeing the necessity of such an arrangement, adapted themselves to circumstances with the greatest good-humor. In a short time the proper names of the days of the week were never heard, but, by general consent, each was designated by the most prominent article of food for that day, according to the bill of fare, such as "bean day," "sugar day," "bacon day," "molasses day," "soft-bread day," etc.

Regulations for the government of the station were also posted up in the eating-room, where all could see them, and know what would be required of them.

These provided, among other things, for the appointment of an officer weekly to superintend the kitchen apartment, see that the beds were aired and made up at a certain time, and that the quarters were swept and kept in order, and to report the violation of any of the rules. Two men were also detailed weekly to sweep the quarters, assist Mr. Farnam in weighing out daily allowances of food, and to keep the cook supplied with coal and water.

With these there were many other minor requirements, some of them necessarily strict, and, out of justice to the good sense and orderly behavior of the men, I will say here that at no time during the following year were any of the regulations transgressed.

Mr. Dixon, our hospital steward and only medical adviser, with his other duties, assumed the care of the barometers and thermometers, and kept a complete meteorological record, or nearly so as his instruments would allow, taking the readings three times during the day, morning, noon, and night.

Among the unfortunates who were compelled to take up their abode with us during the winter by the loss of the *Gate* were Messrs. Stoddard, Leggett, Kelly, and Smith (senior). These gentlemen shared willingly in all the duties of the station, and resigned themselves calmly to the rigors and tediousness of the long winter before them.

The position of the station was not a very sheltered one, though in every other respect it exceeded any other spot we could have chosen. It was situated on a point of level land comprising about twenty acres, bounded on one side by Gold-*Gate* Bay, and on the other by Wade River. This stream is six hundred feet in width at its mouth. The spot had, however, been inhabited long before we took possession of it, both by whites and natives. Heaps of deer-horns indicated the graves of some of the latter, while a high, rude wooden cross, apparently of great age, proclaimed that Christians had also visited the place. These last were undoubtedly Russians, but whether they ever lived at this point I could never learn from inquiry. Deshnew wintered somewhere in this locality in the year 1648, when he first ascended the Anadyr, but I should think it hardly possible that his cross had been standing since his time.

CHAPTER XXX.

Anxiety.—Hope and Fear.—Possible Resources.—Dubiousness.—Foot-perty to Camp Macrae.—Success.—Tchutchu Ideas of our Object.—Explaining.—Day of Rejoicing.—Arrival of the Herd.—Bargaining.—Killing the Deer.—Grubs.—Our Mirrors.—Arrival of Anadyrsk Sleds.—Famine and Distemper.—Off for Anadyrsk.—The Poorga.—Dismay of a New-comer.—Death of Dogs.—Telegraph Bluff.—Oochostika.—Yandenkow again.—Our Champion.—Trading Wives.—At Markova.—Pitiable Condition of Inhabitants.—No Fish, no Deer, no Grouse, no Dogs.—Famines.—Cosacks after Deer.—Start for Ghijgha.—Kennan.—Encouraging News.—More Expeditions for Deer.—Native Endurance of Hunger.—Lamentable Circumstance.—Simple-mindedness.—Notion of Time and Age.—Ill Health.—Confidence.—A Caravan for the Sea.—Supplies from Penjina.—Last Communication.—Arrival of Jared Norton.—A bitter Cold Snap.— $68\frac{1}{2}^{\circ}$ minus.—Sufferings of our Men.—Effects of Extreme Cold.—Christmas Holidays.—Famished Dancers.—Ousting the Devil.—Deer in Penjina.—Koraks and Deer.—Disappointments.—Trading Season.—Absence of Tchutchus.—Last Hope of the Inhabitants.—Macrae.—News from Bush's Station.—Death of Robinson.—Sad Circumstances.—Dismantling the Wreck.—The Fate of Nik.—Young's Adventure with Wolves.—A badly-scared Man.

OUR condition at this time was any thing but cheering, on account of the scarcity of provisions. My own feelings fluctuated constantly between fear and hope. When this extra party was first thrown upon my hands I experienced many an anxious hour, though I endeavored as much as possible to conceal my fears from the party, and whenever any of them asked what we would do for food, as many of them did, I made it a point to tell them we would have no difficulty whatever in securing supplies from the natives.

There were two avenues from which I hoped to procure assistance, but there was a possibility of both of these failing. The first was from the Tchutchus, who I hoped would pass near the station on their southward journeys. From these I had strong hopes of procuring enough deer-meat to carry us through; but in this there were two possibilities of failure. Perhaps the natives would not make the southern journey at all this winter, as was sometimes the case; or, if

They did so, they might pursue some other route, and we had no means of reaching them, nor any knowledge of their whereabouts.

The second resource was through the dog-sleds I had instructed Koschevin, the Cossack sergeant, to send from Anadyrsk with the opening of winter travel. With these, should they arrive, I had hopes either of reaching the Tchutchus, or of dividing the party and conveying some of them to the Okhotsk Sea. But then there was a possibility of Koschevin not having received the instructions sent him, or he may have been unable to procure sleds. Even if the sleds were sent, they would come as far as Camp Macrae, forty-five miles distant from the station, and, finding no one there, also not knowing where to look for us, they would be obliged to return.

At length the 20th of October rolled round and no Tchutchus made their appearance, perhaps through fear of us. To double our chances of finding some of them, and to direct the dog-sleds to the station should they come, I sent a foot-party to Camp Macrae, under the guidance of Mr. Smith (junior), with instructions to remain there as long as their supplies would permit. After a few days, some of the party returned on deer-sleds with two or three Tchutchus whom they had encountered at that place, and persuaded to visit the station. These men had purposely avoided us through fear, they said, thinking our object was to make war upon them, and it was with the greatest difficulty they could be induced to come near us. "If," they said, "your object is not to make war upon us, why didn't you bring your women and children with you?"

We told them that our women were frail, delicate creatures, accustomed to perennial summer, and that they would wilt like flowers on the tundra if exposed for ten minutes to one of their chilling poorgas; and as to the children—why, at the approach of winter, they would die off more rapidly than mosquitoes. From the manner in which one old fellow shook his head, I am satisfied he thought that we were either telling a rather large "yarn," or that our women and children must be strange and useless creatures. With them, the women perform much of the hardest labor, and can bear any amount of exposure.

A few little presents convinced them that our mission was friendly, and, after getting them in the best humor, they promised to bring over their herd of deer, we agreeing to buy some from them, and to pay them in kettles, axes, powder, and tobacco, since those were the articles they wanted most.

This was a day of rejoicing with all hands. Three days later the natives arrived, bringing their families and a herd of about eight hundred deer. We made a satisfactory bargain with them for one hundred and fifty animals, and they started out to select and kill them for us. In a few hours they returned dissatisfied, and demanded more compensation. I saw at once there would be no end to their extra demands in payment, and told them I would pay for the deer the price they had agreed to accept, and no more, but that, when the deer were killed, I would make them a number of presents (naming them) through friendship. We expected to have many future dealings with the tribe, and wanted to let them know that we would abide by our agreements, and should expect them to do the same. He (the spokesman) was perfectly satisfied with the promised presents, and again started out, but in half an hour returned, demanding in addition a gun and various articles we could not spare. We were resolved to get deer now, as we might have no other opportunity, and I at length told him that unless he killed the deer I had purchased from him I should send our own men to kill them instead. He now saw he could get nothing more, and went willingly at work lassoing and killing the animals. Before spearing each one, a kind of short prayer was muttered by the executioner. As fast as they were killed, our men, with the assistance of the Tchutchu women, dressed them, and threw snow inside to prevent their spoiling; afterward they were piled up against the station building to be covered with drift snow. It was quite a cold day, -27° Fahrenheit, but, in spite of this, the women, to free their arms, threw their skin clothing entirely from the upper portions of their bodies, and worked wholly disregarding the temperature. Their heads were also bare and covered with frost.

For the first time, I noticed upon the backs of these deer a very large species of grub, an inch in length, much like those

etimes found on cattle. These the women used to carry l up in their double hands into the house to offer to the , now and then cracking one between their teeth to con- e them that they were good to eat, much to the discom- of some of those uninitiated in Siberian customs. Our ors were great curiosities to these people. It was their f delight to assemble before them in groups and make s. After this band had visited us in safety, several others e, bringing fox and beaver skins and mammoth tusks to ange for trinkets and tobacco. Some of these tusks were normous size, and could be obtained for a mere trifle.

n the 31st of October a dozen dog-sleds arrived from An- rsk, sent by Koschevin. Their reports from the interior e any thing but encouraging for the prosecution of our k. The natives, even at this early day, were many of a in an almost starving condition. No salmon had as- led the Anadyr during the past summer, and they were rely without dog-food. Besides, to add to their misfor- , a species of distemper had broken out among their dogs, swept away four fifths of all in the country. This dis- was undoubtedly the same with which Dr. Kane's dogs been attacked: it almost invariably proved fatal.

ow that the party at the station was absolutely beyond t, our next care was to try and accomplish some work on line. Nothing could be done along the Anadyr until s had been rafted, and, if any thing at all could be effect- the Myan River portion of the district would be best oted for the commencement. Our greatest difficulty ld be in securing transportation and dog-food. If these d be procured, supplies could be brought from Ghijigha istain a party on that river. To ascertain these facts, as as to convey the intelligence of the loss of the Gate and y of all on board, I resolved to start immediately for dyrsk, and thence for Ghijigha, from which place the s of the Gate's loss could be transmitted through by sleds koutsk, and then telegraphed *via* St. Petersburg to Amer- in order to relieve the anxiety of those who had friends oard. Leaving Mr. Macrae in command, and taking Mr. . Norton (foreman), Harder, and two others, I left the on November 5th for Anadyrsk. It was snowing at the

time, and there were indications of a poorga, but we pushed on, taking a direct course across the tundra for Camp Macrae. That place we hoped to reach by night. But the snow was not sufficiently deep on the tundra to cover the rough hummocks, and our progress was slow. Night overtook us with a severe storm, in which our sleds became scattered. Six of us managed to keep together, and traveled until we came to a small cluster of brush, when we built a fire, cooked supper, and threw ourselves down on the snow to sleep. By morning every man and dog was buried from sight in the snow. About noon we arrived at Camp Macrae, where we found the other sleds, they having traveled nearly all night to reach that point. It was a pretty severe initiation into arctic experiences for three of the party, one of whom came to me and asked, "Captain, how long do you think it will take us to reach Markova?" "About thirteen days," I replied. At this his face wore an expression of utter consternation, and he broke forth, "Great G—d! twelve days more!" and, uttering a groan, walked off shivering.

On account of severe storms, we were four days reaching the yurt erected opposite Telegraph Bluff. Four of our best dogs fell dead in their harness from exposure to the fury of the storm. Beyond Telegraph Bluff yurt we had fine though cold weather, and a good hard road all the way up the river to Markova, which place we reached November 17th, after a twelve days' journey.

At Oochostika we found Yandenkow expecting our arrival, and holding in reserve a fine fat deer to present us with. I had brought with me a carbine and several minor presents to give him, with which he was very much pleased. He was very particular to inquire all about the telegraph line; how it would look when done, and every thing connected with it. When I had finished telling him he appeared much relieved, and said his people had been afraid that it would frighten wild deer, and prevent them from migrating across the river, thereby depriving the natives of the means of procuring a livelihood. "But now," he said, in a very earnest tone, "if any of my people touch the telegraph, I'll whip them first myself, and then report them to you." Yandenkow was a very large and athletic man, and a better champion for us could

not have been found in the country. He was conceded by his tribe to be one of the best, if not the best wrestler among them.

During our short sojourn at this place we witnessed a novel trading arrangement, the objects exchanged being the wives of two natives.

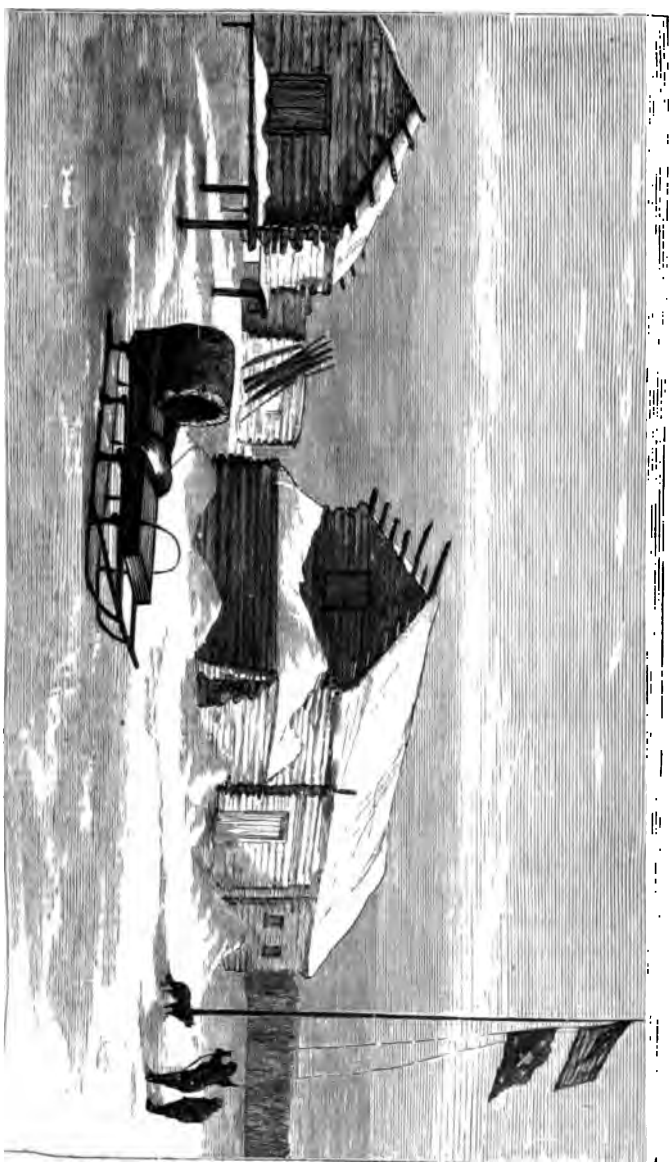
Upon reaching Markova, we found that the reports we had received at the mouth of the Anadyr from the dog-drivers, concerning the destitute circumstances of the inhabitants, had not been exaggerated. In view of the anticipated hard winter, numbers of families had moved to the mouths of the Myan and Baillee Rivers to fish through the ice. We found old Avaram, the bear-hunter, at the Baillee. One native, more enterprising than the others, Illia Deachkoff, had taken his family to the Myan, where he had built our house the previous spring, near the mouth of the Olgan. Of those that remained, many were in very pitiful conditions, utterly without food, and even at this early stage of the winter were boiling up their deerskin bedding into soup. Their dogs were nearly exterminated, and what remained of them were half starved and almost unfitted for use. But, even had they been in condition for the road, the Tchutchus and other neighboring tribes had not yet begun to approach the settlement, and there were great doubts whether, by going in search of them, assistance could have been procured.

These famines occur every four or five years, owing to failure in catching fish; but usually the people struggle through the winter by obtaining deer from the wild tribes, and by trapping grouse, which are almost always very abundant. But this year misfortunes were heaped upon them. They had succeeded in spearing but few deer, and salmon had failed altogether. Their dogs were nearly all dead, therefore precluding the possibility of going to the wandering tribes to buy deer, and, strange as it may seem, scarcely a grouse was to be seen about the settlements. Their last and only hope was that the deer-men, hearing of their situation, would approach nearer the settlements with their herds, so that they could be reached.

These misfortunes rendered it impossible for us to derive any assistance here, either in labor or transportation, for the

prosecution of our work. Penjina and Ghijigha were the nearest sources from which we could expect to obtain either. Without these, even could we get the necessary supplies from Ghijigha to sustain a party on the Myan, but little could be done in the way of distributing poles over the route, which would be the first thing necessary. Immediately after our arrival I sent Koschevin in search of the Tchutchus, to purchase seventy deer for ourselves and the natives, to many of whom we were indebted; and having left Mr. D. C. Norton in charge at Markova, on the 20th of November I managed to collect enough dogs for two teams, and started for Ghijigha, taking the direct route to Penjina. On the third morning out, as we were crossing Ruski Crebet, a low ridge, we met Kennan, on his way to Anadyrsk with a small supply of provision, and eleven hundred dry fish for dog-food. It was a joyous meeting, and, there being a poorga raging at the time, we returned to a point where the route crosses the Orlafka River, and, pitching a polog, spent the day recounting our various experiences since last meeting, and perusing letters from home, of which each had several for the other. But the most welcome intelligence was that there was the greatest abundance of provision in Ghijigha, brought there by one of the Company's vessels, and Kennan thought he would have no difficulty in securing the necessary transportation for it. The following day we started back for Anadyrsk. Kennan remained with us only four or five days, and hurried back to the Okhotsk Sea, to convey the intelligence of the wreck. Short though his visit was, as I look back upon it now, it appears to be the only bright spot upon the dismal page of that winter's proceedings. The good news he brought for a while brightened up the gloom occasioned by the sufferings of the poor people all around us, and somewhat encouraged our hopes of accomplishing some work on the line. We were both satisfied that a party could be sustained on the Myan; but to procure dogs and dog-food for the distribution of poles would be our greatest obstacle. Should, however, we succeed in getting deer from the Tchutchus or Koraks in sufficient quantities, even this obstacle might be overcome. In three or four days Koschevin returned, having been unsuccessful in finding the natives.





HEAD-QUARTERS AT NANKOVA.



It was yet early in the winter, and, thinking it would be possible to work out of doors during the months of December and January on account of the extreme cold, I decided sending to the Gulf Station for more men for the time being, though I immediately dispatched Koschevin and Tolshin again in search of the Koraks, with tobacco and mail sufficient to purchase two hundred deer. After a few days they again returned unsuccessful, and then Koschevin started for Penjina, to forward supplies from that place as soon as they should arrive from Ghijigha.

The month of December rolled by cold and stormy, our pit thermometers indicating as low a temperature as -56° Fahrenheit. This was the coldest weather any of us had experienced, but our comparatively comfortable quarters, with plenty of firewood, placed us out of reach of the unpleasant influences of this low temperature. However, we found it necessary to wear our furs even indoors a portion of the day, and within three feet of our large blazing fire water pipe. Several times I attempted to write at my desk, a few feet distant, but was compelled to desist.

How the people lived during this time I can't conceive, but they are peculiarly and fortunately constituted. Starvation they are accustomed to, and they can subsist upon a smaller amount of food than I would ever have dreamed it possible.

We shared our scant supplies with them as much as we needed to, but our past experiences in the country had taught us not to rely too much upon future expectations. One poor man, whose family was upon the verge of starvation, came one day with tears in his eyes imploring assistance. He had a large family of small children, who had eaten nothing for two days—poor, haggard little creatures, nearly famished to death; and his dogs, of which he had seven, were mere living skeletons. To feed his dogs was out of the question, but we gave him what food we could spare, and he departed off, relieved for the time being. A few hours afterward another man came, and wanted to get my advice on a matter that he said had been troubling him for several days, which he was unable to decide upon for himself.

"You know, barin (sir)," he said, "the winter has hardly commenced. I have a wife and seven children, and seven

dogs to support, and not a pound of meat or fish to give them. But I have some deerskins and eight fathoms of seal-thong which I can boil up. These are not enough to sustain the family, and the dogs too, until the Tchutchus come to trade, and I don't know where to get any more, as my neighbors are all starving too."

Here he hesitated a moment, and, with a faltering voice, said,

"If my children perish, I will have my dogs left; but if my dogs perish, how can I go to the Tchutchus to get deer? Then my family will starve too, and I will have neither family or dogs."

What he wanted me to decide was whether he should let his family or his dogs starve. This only serves to show the desperate straits to which some of them were reduced. A little provision, with the promise of more when the Penjina sleds should arrive, together with a short moral lecture upon the duties of parents, etc., relieved him very much, and he went off encouraged, and, I dare say, convinced what course to pursue if driven to the worst.

These people, old and young, are perfect children in their tastes and notions. It was almost a daily occurrence for some of them to come to our quarters to have some question in dispute settled, or to get advice upon some matter. Any thing we would tell them they would accept as Gospel, and our advice was law with them. It was sometimes quite amusing to listen to their debates on the simplest matters, and to act as arbiter for them. On one of these occasions, two old men, the younger thirty-five years my senior, came to get some kind of advice. When they had received it they expressed great thanks, and one of them said, "Ah! barin, you are just like a father to us." The manner in which this was spoken, together with the circumstances of our relative ages, made the whole thing appear very ludicrous.

They have no conception of time or ages. One of our party, who was twenty-three years of age at the time, an otherwise sensible native, after thinking a while, judged to be fifty-five years old. "Oh no, my friend," said another who was present, "more than that; I should say sixty-two or sixty-three, at least."

They have no beards whatever, or but very little, and, in the fact of our having them, they decided at once that we were all very old men. They rarely spoke of any of our men except as "stareek" (old man).

These semi-civilized natives are not a very robust people, and are afflicted with a great deal of disease, probably brought on the shores of the Okhotsk Sea. They had such implicit confidence in the superior knowledge and ability of the members of our party as to imagine us all, with our other accomplishments, to be likewise possessed of a knowledge of medicine, and being confirmed in their notions by the fact of our bringing a small medicine-chest with us, they beset us almost day for medicine. In a short time all the harmless contents of the chest were consumed, as we did not dare to make use of the others, but still they called and pleaded for more. They were unable to comprehend that certain medicines were suitable only for certain cases, but would pick up one after another, and want to try some of each. Any thing we would have given them they would have swallowed without the slightest hesitancy.

Up to this time I had held in reserve the eleven hundred fish brought me by Kennan for the purpose of supplying the men going to the mouth of the Anadyr. The natives, being without food for their dogs, were glad to make the trip for the sake of having their dogs fed, and on the 13th of January sent thirteen teams to the lower station to bring up Mr. Fred Norton and five workmen, together with the necessary elements for labor on the Myan. It was my intention to send a party to that river to cut poles and commence the distribution. As yet no stores had arrived from Ghijigha, though we were expecting them daily.

February 2d Koschevin returned from Penjina with eight nartas loaded with supplies, brought to that place by the Ghijigha ispravnik for our use. These nartas had also promised to continue on to the mouth of the river, if needed, and, being supplied with their own dog-food, I started them on immediately to that place, to bring back Messrs. Macrae, Carter (telegraph operator), and Frost (first officer of the wrecked vessel), together with six other men. Mr. Frost and four of the crew of the Gate had joined the land-party

since my departure from the station. This would necessarily be the last train to go to the Gulf Station during the winter, so I requested Mr. Macrae to bring up also a supply of salt provision, to be used for the support of the Myan party during the spring floods, knowing that it would be impossible to procure other food during that time.

On the 5th of February, the thirteen sleds, with Mr. Jared Norton, arrived at Markova from the station, after a quick and pleasant journey, it having taken only twenty-three days for the sleds to make the round trip; and on the 9th of February, having a good supply of provision on hand, the first party of six men, under Mr. D. C. Norton, left for the Myan to commence work.

By waiting until the month of February before sending men into the field I had hoped to escape the severest cold, but, as it proved, was mistaken in my calculations. Immediately after Mr. Jared Norton's arrival in Markova, and during Mr. D. C. Norton's journey to the Myan also, for the two weeks succeeding we experienced by far the coldest weather of the winter. From the 7th to the 18th of February inclusive the mean temperature at all hours of the day was -42° Fahrenheit, the maximum -20° Fahrenheit, and the minimum $-68\frac{1}{2}^{\circ}$ Fahrenheit, this last being upward of 100° below the point at which water freezes.

The extreme temperature on the 18th was -52° Fahrenheit, and on the very next day the spirits in our thermometers arose to $+21^{\circ}$, making a change of 73° in temperature in the short space of twenty-seven hours.

On the 19th, 20th, and 21st of February the temperature fluctuated between $+21^{\circ}$ and -19° Fahrenheit, and then, during the four days following, our thermometer indicated -49° on the 22d of February, -56° the 23d, -62° the 24th, and -41° the 25th of February. During the warm spell we had a light fall of snow, but the remainder of the time it was clear and calm.

While the weather was coldest Mr. D. C. Norton and party were living in the open air, the house we had commenced building the previous spring not being habitable, and requiring fixing to a great extent before it could offer any protection against cold. During the coldest nights this party did

are to go to sleep. Mr. Norton assured me that while being so near their camp-fire as to nearly burn their hands held in front of them, their noses were actually freezing. At this time Mr. Macrae and party were also on their way to the Anadyr River, but with them the weather was much warmer than farther inland, though nevertheless very severe. Even thus indoors it was extremely cold, and, though our fire was all ablaze with burning logs, in some portions of the room near the floor the spirits sank to -35° Fahrenheit. At the time the moon was full, but it cast a pale, indistinct light on the landscape. The atmosphere itself appeared to be hazy, obscuring every thing as if in a thick mist. To test the effects of this lowest temperature, I stepped out of doors unclothed and barehanded, and stood for some moments. Upon first emerging from the house, I could not perceive that it was any colder than I had previously seen it on a few cold occasions. It was calm and deathly still. The only thing uncommon that I noticed was a hissing sound, occasionally by my warm breath coming in contact with the cold air. But in a few moments I felt a very slight pricking sensation in my nose, ears, and fingers, which was accompanied by a peculiar feeling, as if those features were being drawn together like a wilting leaf, and then I sought refuge in the house. I had always associated in my mind a vast amount of shivering and chattering of teeth in connection with extreme cold before coming to this country, but, during a sojourn of more than two years, I do not remember, except on one occasion, ever having seen a person shiver from cold, and this one broken through the ice on the Myan River and become frozen when the temperature was hardly below the freezing

point. It is the suffering from cold in this dry atmosphere, elsewhere the body becomes moistened through perspiration. Otherwise, one tenth part as great as I had expected it. Dressed in these heavy furs, if compelled to exert much, even at a very low temperature, one will persevere more or less, and then he is likely to suffer a great deal more. He can change the moistened garment; but with proper care and by not burdening himself with a superfluity of furs, he can travel for days without experiencing much

suffering, though he may freeze his nose a dozen times. This last experience is accompanied with very little pain—so little, in fact, that one rarely knows when his nose is frozen until made aware of the fact by a companion, and then the remedy is always at hand. I have never yet seen a native with a frozen nose, but it is very common for them to have their cheeks and chins frostbitten.

In spite of the scarcity of food and the great uncertainty ahead, the inhabitants entered into their holiday sports with their usual zeal. Our own Christmas was a forlorn affair, but theirs, which came twelve days later, was observed as strictly as on former occasions. Vechourkas (dances) were almost of nightly occurrence.

They were always fully attended, and oftentimes those persons in the most destitute circumstances would be most merry. Among other sports at this time, parties disguise themselves with wooden masks or handkerchiefs, and visit every house in the place, carrying their three-stringed musical instruments with them for dancing. This species of masquerade is kept up nightly for a week or more, after which the village priest goes around to each house and reconsecrates it, it being supposed that during the masquerades the devil gets possession of them, and this ceremony is intended to oust him again.

During the visit of the Ghijigha ispravnik in Penjina he had succeeded in purchasing one hundred and seventy deer from the wandering Koraks for our use. These were so far distant, however, and we found so much difficulty in getting transportation, that we derived but little benefit from them. Dogs consume so much deer-meat for food that, had I sent teams to that place to bring some of these to Markova, nearly all the load they could have hauled, in their present feeble condition, would have been required to sustain them during the journey. We found that it would be necessary to have the animals driven to this place and to the Myan, and then killed, in order to secure the requisite amount of meat. To try and effect this, I again sent out the Cossacks.

On the 17th of February some Koraks arrived, from whom we obtained thirty-six animals. They reported that seventy others were on the way that Koschevin had bargained for.

enty of the thirty-six were at once sent to Mr. Norton, on Myan, the remainder being used to feed the dogs.

After waiting a number of days for the other Koraks to arrive, a native came in saying that this band had found it practicable to drive the deer farther than the Orlofka, on account of deep snow, and that they had killed the seventy that stream, and left them lying without dressing them, which resulted in their becoming unfit for any thing but dog-food. This was a very serious disappointment for us.

Annually large numbers of Tchutchus come to Anadyrsk to trade with the fur merchants from the Okhotsk Sea. The hunting season was now approaching, and, having been disappointed in our other calculations, we looked to these traders as our last resort. The merchants were already beginning to trade with large quantities of tobacco and trinkets for the furs, but as yet no Tchutchus, except a mere handful who had neither herds nor many furs to exchange. Beaver-skins constitute the chief article of trade at this point, though they had all brought across Behring's Straits. Large numbers of furs are obtained every summer from the American natives, and we exchanged them for reindeer-skins, to be used in the manufacture of their clothing.

February rolled by, and, in fact, so did the whole winter, without the arrival of the expected Tchutchus. The merchants were compelled to depart empty-handed. But the severest disappointment was for the inhabitants, who relied chiefly upon obtaining food from this source. Nevertheless, some of them partially expected it, knowing that on former occasions, almost invariably when the settled natives were in straitened circumstances, those having deer had purposely kept them by, fearing lest they should have to donate large numbers of their animals and receive nothing in return. Now we all had to look to Ghijigha for supplies, and those of the natives who had dogs held them in reserve for that trip. This made it still more difficult for us to get transportation.

The Penjina sleds I had started February 4th to the Gulf of Laptev for Macrae and party did not return to Markova until March 4th. They had a very severe journey up the Anadyr, and, to add to their gloom, lost one of their party—John Robinson—who died on the journey from inflammation of the

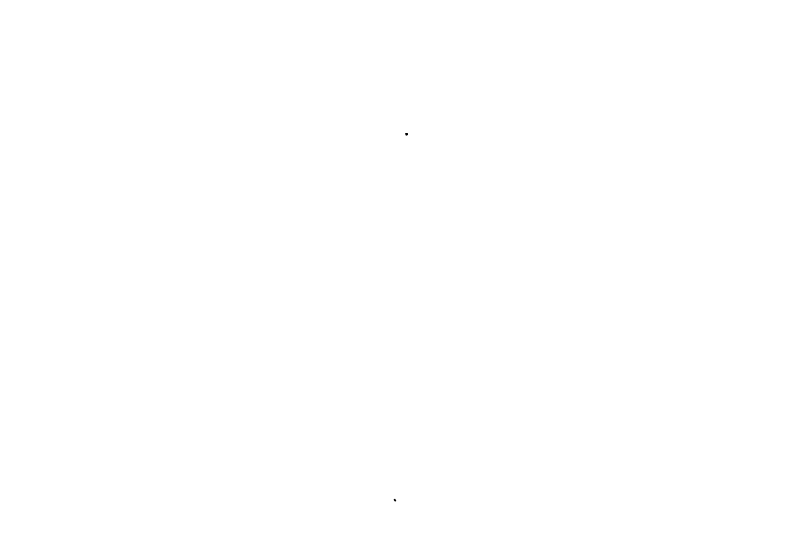
bowels. Upon leaving the station poor Robinson appeared to be in perfect health, but four days afterward, on the 21st of February, he died in Telegraph Bluff Yourt. A fearful poorga was raging at the time, the wind blowing a perfect hurricane, howling dismally about the solitary little hut, and sweeping dense clouds of snow before it. Inside it was cold, dark, and gloomy. A fire had been built in the chual, but it did not suffice to keep the room warm, as the moss chinking between the logs had been blown out in many places. Through these cracks the wind found its way, driving before it sheets of snow that sprinkled the apartment. Here, stretched out on his skin bed; lay poor Robinson, breathing his last far away from home and relatives, and with none but the rough though willing hands of his hardy companions to administer to his wants. It was most saddening under the circumstances, but how immeasurably worse it would have been without the shelter, imperfect as it was, of this poor little hut. The thought of the protection it afforded to the dying man a hundred fold compensated for the difficulties and privations we underwent while waiting for the waters to subside, and in rafting during the spring months.

Up to the time of Mr. Macrae's departure from the station, nothing of note had transpired. He had succeeded in purchasing fifty deer to be used for dog-food for teams going to the station. The party was in good health and spirits, devoting fair days to dismantling the wreck, and hauling the spars, cables, sails, and every thing of value ashore. In this they were assisted by the two dogs Kiote and Nik; but poor Nik came to a very unfortunate end soon afterward. The deer-meat piled about the station attracted large numbers of wolves from the neighboring tundra. One night a large band of them dashed down to the very door of the station, and the next morning Nik's body was found literally torn to pieces within a few paces of the sailor's house. Nik's loss was much lamented by all the party, as he had become a great favorite. He was by far the finest dog I had seen in the country, being both large and handsome. One of the Gate's crew—Young, a man six feet three inches in height in his stockings, had also come very near having a like experience with a pack of wolves.









three miles back of the station, on the tundra, were several lakes that the men frequently visited for the purpose of fishing through the ice for trout. In this they were quite successful, and nearly every fair day some of them would be out with their lines, carrying axes with them to keep the paths clear of ice. On this occasion Young was alone, and had no protection except his axe. It was very common to hear the howling of wolves on the adjoining tundra, but the men had learned to pay no attention to it. While fishing near the middle of a small lake, Young was startled by the cries of wolves very near by, and, glancing in the direction from which the sound came, soon saw a large buck deer dash down on to the lake and rush along the shore within a hundred yards of him. A minute afterward, seven famished-looking wolves of very large size also dashed down upon the lake at full speed, with heads and tails in the air, following the tracks of the deer. Young seized his axe, but kept perfectly still, hoping the animals would not give him. On they dashed, and were just about to pass when, one of the pack catching sight of him, the whole rushed toward him. Anticipating a severe struggle, he sprang to his feet, swinging his arms and the axe, and shouting at the top of his voice. The wolves were evidently not expecting such an apparition, and were so struck with astonishment that they stopped immediately and squatted on the ground within a hundred feet of him. But in a minute they found courage and made another dash for him. Having observed the effect of his first actions, he repeated them, but this time with still greater vehemence—yelling, swinging his axe, and starting toward them. They paused only for a moment, and then fled, taking up the trail of the deer again. In this episode Young at once took up his line of march toward the station, the worst scared man in Northeast Siberia, according to his own statement, and fully resolved never again to venture alone upon the tundra.

CHAPTER XXXI.

Telegraph-building under Difficulties.—Departure of Macrae for the Myan.—Supplies in Penjina.—Stock on hand.—Non-arrival of Sleds from Ghijgha.—Surmises.—Off for the Okhotsk.—Penjina deserted.—Mr. Jared Norton.—Arrangement with Cossacks.—The Journey.—At Ghijgha.—Arnold in Trouble.—Departure of Supplies for the Myan.—Poorga.—Lost.—Return.—Fresh Start.—Arrival of Anadyrsk and Penjina Sleds.—Squaring Accounts.—Gambling Priests.—Difficulty of obtaining Transportation.—Home Journey.—Sanford's Caché and the Bears.—Penjina open.—Anadyrsk Sleds.—Alarm for the Myan Party.—No News.—Failures.—Supplies to the Rescue.—At Markova.—Macrae's Report: Commencing Work.—Cutting Poles.—Sickness.—Reduced Supplies.—Suspension of Work.—Illia Deackhoff.—Sleds from Crepast.—Men discouraged.—Field-Party.—Off for the Orlofka.—Failure of Traps.—More Supplies.—Expedition to Koraks.—Olgan River.—Hard Journey.—Unsuccessful.—Return.—Work discontinued.—Precarious Livelihood.—For Markova.—Buying Horses.—Destitution.—Feeding the Men on Horse-meat.—Opportune Arrival.—Preparations for Journey to Penjina.—Enormous Appetites.—Start.—Meat Sleds.—Return.—Provision.—Baxter's Departure with Stores for the Myan.—Explanation.—Cause of Distress.

IMMEDIATELY upon his arrival at Markova, after his trip up the Anadyr, Macrae started for the Myan River, with the men he had brought from the lower station, to take the command of the parties at that place. He took with him all the supplies in and about Anadyrsk, together with tobacco and various articles for trading with the Koraks and Tchutchus for deer-meat. The most work he could accomplish would be to cut the necessary poles for the Anadyr River and prepare them for rafting in the spring, except, perhaps, to cut poles and distribute them by hand up the Myan as far as the Orlofka. We now no longer retained any hope of procuring sleds and dogs for the distribution of poles.

I was anxious for the party under Mr. Norton to work their way up the Myan as far as possible, thereby lessening the distance to Penjina, from which place, by direct route, there would probably be no difficulty in supplying them, with the assistance Mr. Kennan expected to be able to render from Ghijgha.

There still remained in Penjina a very good supply of pro-

visions for us, brought by the ispravnik in the month of January. To procure a portion of these to send to Macrae, I succeeded in employing six teams from the natives by paying them in deer from the Orlofka, and, on the 19th of March, started them off for that place under the direction of Mr. Jared Norton, who would remain there to receive supplies from Ghijigha, and forward them as fast as transportation could be procured.

The day after Mr. Norton's departure, Koschevin arrived from Penjina with two sled-loads of provision, and the surprising information that none other had reached that place from Ghijigha since early in January. From this long delay judged at once that Kennan had been disappointed in securing the transportation he had expected. We had now a supply sufficient to last the party until the 1st of May; but after this would be the most difficult season in which to procure food, and, unless other could be obtained from the Okhotsk Sea, undoubtedly great suffering would ensue to the party.

Macrae, during his journey up the Anadyr, had been obliged to abandon at Camp Macrae the supply of salt provision intended for the season of high water, and now we had nothing to fall back upon. With these alarming facts staring us in the face, our only alternative was to endeavor to procure sleds here and at Penjina with which to proceed to Ghijigha for supplies, and to return immediately. By starting at once and traveling at the ordinary speed, supplies could be got in time to prevent suffering. It was now nearly time for those natives who had been holding their dogs in reserve to make their expected journey to Ghijigha also; but their sleds would be required to bring back supplies for their families to prevent them from starving, consequently no assistance could be obtained from them. Nevertheless, by the 26th of March I had obtained four dog-teams, and immediately started for Penjina to procure others, first notifying Macrae of my departure, and leaving a man at Markova to try and purchase deer, as well as to forward supplies to the Myan.

On my way to Penjina I met the six nartas sent with Mr. Norton returning laden with provision from that place.

These would sustain the party until my sleds could return from the Okhotsk.

Upon arriving at Penjina, I found that place nearly deserted, all the inhabitants having gone off in search of the Koraks for deer-meat, but was told that several sleds could be procured for the transportation of our supplies upon their return. For these I could not wait, so pushed on toward Ghijgha, pursuing the same route Macrae and I had followed on our northward journey the previous spring. Before leaving Penjina I instructed Mr. Norton to forward supplies to the Olgan to meet Mr. D. C. Norton's party, also to engage all the sleds he could to come to Ghijgha after me, and likewise made arrangements with some Cossacks to have deer driven to the Myan and killed. At this time twenty-four deer were on the way to the Myan for Macrae's party.

Our journey to Ghijgha was an uneventful one. The snow was hard, and in good condition for traveling, and our sleds being light, we effected the distance in the short space of thirteen days from Markova. The temperature ranged from $+10^{\circ}$ to -40° Fahrenheit. At the Korak settlements of Shestakova and Cocil we procured dog-food, and on the morning of April 9th entered the town, much to the surprise of Kennan, and Dodd, and a dozen other gentlemen who had arrived the previous fall on the Company's barks Onward and Clara Bell. Owing to the lateness of the season, the Onward only reached Petropaulovski, and her passengers, to reach Ghijgha, had made the winter journey through Kamtchatka with dogs and deer.

Our conjectures about the difficulty of procuring transportation from Ghijgha had been correct. Mr. Arnold's party at Yamsk had also been in reduced circumstances, the dogs at that place being nearly all dead too, and Mr. Kennan had found it impossible to supply both him and the Myan River party with the few dog-sleds at his command.

We arrived at Ghijgha April 9th, and on the 12th a severe poorga arose, making it impossible for my four sleds to start back with supplies; but on the 13th the weather moderated again, and the sleds took their departure, with instructions to proceed as rapidly as possible to Anadyrsk. They had seventeen days in which to reach that place before Mac-

rae's supplies would be exhausted. I remained, to return with the Penjina sleds Mr. Jared Norton was to forward. On the 14th the poorga again increased in fury, and continued for two weeks almost without cessation. I felt much anxiety for the four teams just departed on account of the vast open tundra they had to traverse, and feared they might experience great delays, even if they should not be forced to retrace their steps; therefore was not much surprised, though greatly disappointed, when, on the 19th, they came crawling back into Ghijigha with empty sleds, and completely exhausted. The poorga had caught them in the middle of the tundra, and for three days they had been wandering about, completely lost. Upon starting they had but one night's food for their dogs, expecting to get a supply at Coeil, consequently their animals were now nearly famished. To lighten their sleds they had been compelled to abandon their loads. Now they had but eleven days in which to reach Markovā. This would be almost impossible with loaded sleds and their exhausted dogs, but no time was to be lost. After allowing them one day for rest, we again loaded up their sleds and started them off, with two additional nartas, on the 21st of April, though the storm was still raging.

The Penjina and Anadyrsk sleds did not arrive at Ghijigha until April 30th, having been detained on the way by bad weather. The latter were twenty-eight days making the same journey I had accomplished in thirteen days, but their dogs were in a fearful condition at the start. Every thing with four legs had been pressed into the service by the natives for this trip, with the hope of procuring supplies for their families.

Hitherto we had been unable to pay but few of the natives in provision for past services on account of our own pressed circumstances; and, owing to some mismanagement at head-quarters in New York, we had been wholly without other means; consequently, by this time, we found ourselves more or less in debt to nearly every individual. We had issued promissory notes payable in Ghijigha in provision, and, upon the arrival of the sleds at that place, I had promised to redeem them.

This was a most fortunate circumstance for the poor peo-

ple, for, after their notes were redeemed, their sleds were all heavily loaded with substantial food. If, on the contrary, they had been paid in money, the greater part, if not all of it, would have been lost in gaming with the priest, who is an expert in the business, and almost supports himself and family upon the furs and roubles gotten in this way from the natives. He and the Ghijigha priest, almost every winter, enter into a copartnership, and travel among the Koraks on a gambling tour, from which they frequently return laden with valuable furs. During his stay in Ghijigha (for he came with the Anadyrsk sleds), this "spiritual adviser" of the poor unfortunates dependent upon his guidance was in a continual state of intoxication.

I had much difficulty in procuring transportation for the necessary quantity of supplies for the Myan party, and only effected it by distributing them in small lots among a large number of nartas. With the last of these I left Ghijigha May 3d, fifteen days later than Macrae and I had started the year before. Messrs. Rourke and Pierson, two of Mr. Kennan's party, accompanied me to Penjina, where Mr. Sanford, with a small party, had preceded them, for the purpose of cutting and rafting poles on the Penjina River.

The tundras along Penjinsk Gulf were nearly free from snow, making very difficult traveling. We also found it nearly impossible to ascend the Shestakova River on account of open water, but north of the Crebet or ridge it was colder, and the traveling better. At the Aklan River Sanford had been obliged to caché some of his provision, his loads being too heavy. Upon our arrival we found that bears had been at his caché, and destroyed every thing excepting half a dozen axes, which they probably found unpalatable.

Opposite the town of Penjina the Penjina River was nearly free of ice, so much so that, upon our arrival at that place on the 14th of May, we had to be ferried across the river in carbasses. Here I was much alarmed at finding the first sleds I had sent back from Ghijigha with supplies for Macrae's party. They had but just arrived after a journey of twenty-two days, in which they lost several of their dogs. These sleds ought to have reached the Myan by May 3d at the ordinary rate of traveling.

This long delay occasioned great anxiety for the safety of the party, whose supplies must have utterly given out some time since. Mr. Norton had received no information from them for more than three weeks, and was therefore unable to judge of their condition. The supply sleds were immediately dispatched upon our arrival, to proceed without delay to Myan.

Mr. Norton informed me that directly after my departure from the Okhotsk all the dogs able to travel left both Anadyrsk and Penjina for that place also, depriving him utterly of all possibility of forwarding supplies. The deer-meat on Orlofka had all been consumed by passing teams, and it was impossible to procure dry food, else he might have saved one team by gathering together the stray, useless dogs that had been left behind. But it would have been necessary for these to haul deer from Penjina for their own subsistence while on the road, of which, in their present feeble condition, they could not have carried more than three days' supply, even without other load. Under these circumstances, it was useless for him to attempt a journey of ten or twelve days' duration, which time would have been consumed in going to and coming from the Myan. The Cossacks, with whom we had made arrangements, had also failed in inducing the Yakuts to drive their herds down the Myan on account of the depth of snow, though they were offered their own price for so doing.

Many of the stores just arrived from Ghijigha had been left on Penjina nartas, and, as these could go no farther on account of the lateness of the season, we were now confronted by new difficulties. Fortunately, Mr. Sanford had a team of dogs of his own, which I secured, and, by offering inducements to the Anadyrsk drivers, they managed to load the remainder of my stores on their sleds for the trip to Anadyrsk. When all the supplies had been forwarded, Mr. Norton and I took our departure from Penjina, and, after four days' journey, reached Markova May 21st.

Here we found Macrae and four of his men living with the Yakuts, and subsisting upon any thing they could get to eat. The remainder of the party were yet on the Myan in a very precarious condition, living upon horse-meat, and many of

them down with sickness. They had led a very anxious life for the last month, and had undergone considerable hardship. Macrae's report, which I here subjoin, will convey a much better idea of the experiences of his party on the Myan than I could otherwise furnish.

MACRAE'S REPORT.

Markova, N. E. Siberia, June 4th, 1867.

SIR,—My last report to you gave you an account of the progress of the work at the Myan Station to March 10th. On the 13th of the same month, the weather having cleared up, which had been stormy for a week previous, Mr. Frost moved up to a slew on the Olgan with his four constructors, and on the same day Mr. Norton started out with his party of six, cutting and distributing poles on the Myan section. I divided with Mr. Norton my provisions, which gave each party ten days' rations of hard bread, tea, twenty-five pounds of bacon, and two deer each, which you sent down at this time from Crepast. Before going to work cutting poles, Mr. Frost constructed a small cabin fifteen feet square, as the weather was too severe for camping out—the mean temperature of the nights being below -30° , as far as I could judge without a thermometer. In order to forward the work as much as possible, I sent Frank to cook for Mr. Frost's party, and Mr. Baxter and myself brought in wood and water, and cooked for ourselves.

The snow in the timber was from four to five feet deep, and, as the men were without snow-shoes, two thirds of their time was occupied in passing from one tree to another, and they only averaged thirty poles to a man each day that they worked.

There was, however, scarcely a time when some of the party, and sometimes the whole, were not unfit for duty on account of severe diarrhœa which attacked every one. I had no medicine except laudanum and opium pills, which the severe cold made me cautious in using. On the 21st of March, our provision being reduced to two days' supply of hard bread and deer-meat, I ordered the work suspended and the men placed on half rations. Up to that time Mr. Baxter and myself lived upon fish furnished by Illia,* and I will take occasion here to say that whenever he caught any fish or game he divided them with us, and on several occasions took Mr.

* Illia Deachkoff, the native who had settled on the Myan, near the Olgan, the previous summer, mentioned on a former page.

Norton's party a supply. He was ever willing and ready with his sled to assist us, and, without his assistance, I would have been unable to send to Mr. Norton the supplies which reached me from you. The men from Markova and Crepast being invariably without food for themselves or dogs, he always fed them and their dogs while they were at the station.

On the 25th two sleds arrived from Crepast with flour and hard bread, and on the same day Mr. Norton and party came unused up, not having slept for three nights on account of the severe cold. Reports were circulated among the men that you could not procure sleds to send us provisions, which produced a bad feeling, and made them very uneasy and discontented.

I attributed the diarrhœa to the entire absence of grease of any kind with our food, and wishing to see you on these subjects, and also, if possible, to procure sleds to go to the Koraks for deer, I left the station and proceeded to Crepast, arriving there on the evening of the 26th.

I was much surprised to receive a note from you stating that you would start that morning for Ghijigha, and to learn that you had gone.

All the natives were preparing to leave for Ghijigha, with every team that was able to travel. With one or two exceptions, the families at Crepast were living from hand to mouth on birds and rabbits, and they represented the people above Markova to be in a starving condition. I offered to go with them to the Koraks, and, if I succeeded in purchasing fifty deer, would give them thirty. This I considered a sufficient inducement to secure them for the trip, even if they were not in such a sad state as they represented themselves to be. They promised to make every effort to get sleds and go with me. Next I hired the starasta's narta at a high price, and returned to the station.

April 3d, Mr. Norton having recruited his party, and the weather having moderated somewhat, he again started out, taking with him ten days' rations in hard bread, beans, deer-seat, tea, and sugar, the latter as a luxury.

In your note to me, you said, "Tell Mr. Norton to push on to the Orlofka, as we shall be able to supply him from Penjina when he reaches that point." He also received a note from you to the same effect. I wrote to Lieutenant Norton, L. Q. M. at Penjina, that Mr. Norton's party would be at the mouth of the Orlofka River on the 12th of April, and represented to him the serious position in which they would be placed if there were not provisions there to meet them.

The weather continued very fine, but intensely cold for the season. I judged the temperature at nights to be at least 30° below zero up to the 12th of April.

After the 25th of March Illia's fish-traps failed, and from that time Mr. Baxter and myself supplied ourselves with meat from grouse and rabbit traps, and sometimes we sent up a supply to Mr. Frost's party. We did not care to eat deer-meat when we could get any other kind.

April 11th, Mr. Frost's provisions being reduced to two days' rations of beans and deer-meat, he again stopped work, and I ordered all the men to set traps.

On the 13th Mr. Harder arrived with four sleds, bringing five deer, four sacks of flour, two sacks of beans, ten pounds of bacon, and an abundant supply of tea. He brought me a note from Lieutenant Jared Norton, saying he could not hire sleds to go by the way of the Orlofka River, and that the provisions at Penjina were reduced to two sacks of flour, one box of hard bread, ten pounds of bacon, thirty pounds of tea, and one hundred pounds of sugar, and, as he did not mention deer, I took it for granted that they too were exhausted. These men came with Mr. Harder to go to the Koraks on the conditions I made to them at Crepast. They had but one day's food for their dogs, so I could not get them to go to the Orlofka with supplies for Mr. Norton's party; besides, it was uncertain whether they would find Mr. Norton there or not, as he had some intention of proceeding to Penjina in the event of his finding no provisions at the Orlofka.

One of the natives said he knew the exact spot where the Koraks were camped, that they had plenty of deer for sale, and distant, with good road, only one day's drive. It was my last and only chance of procuring meat to supply the parties during the freshet, when it is impossible to go any where. I therefore made preparations to go. A storm detained me two days.

Having little faith in the miserable dogs that came down from Crepast, even for one day's drive, I persuaded Illia to go with me. I placed Mr. Frost's party on a ration of one pound of flour until my return, and left instructions with Lieutenant Baxter to do the same with Mr. Norton's party, should they come in.

The morning of the 16th was clear and calm, and we got off early. I took with me three of the five deer Harder had brought for dog-food, and Illia furnished us with some old fish for the road; I also took three days' rations of hard bread and plenty of tea.

Mr. Frost's party of six men ate one of the best of the deer at four meals, so you can judge of their size and quality.

The last storm made the snow heavy, and we got along slowly, having to walk on snow-shoes most of the day. We traveled thirty miles, and camped on the northeast fork of the Olgan, some ten miles from where we expected to find the Koraks. A heavy snow-storm set in during the night from the east, the direction in which we wished to go. We pushed into it, however, the next day, and came to the deserted camp of the Koraks. They had evidently just moved, as the storm had not covered up their tracks. Our guide then said we would find them on the southeast fork, distant about fifty miles. We followed their trail into the mountains separating the two streams, and at night had only traveled about twenty-five miles, every one being upon snow-shoes breaking the way or assisting the dogs. The next day the storm increased in violence, with such dense clouds of snow drifting through the mountain passes that we could not proceed with the sleds. I offered each man thirty roubles if they would go in search of the Koraks on snow-shoes, myself remaining with the sleds, as I was weak from diarrhœa, and could not stand to walk much farther. They replied that if there was the slightest chance of finding the Koraks in the storm, they would go without pay.

The next morning, our provisions being reduced to one fish and a few pounds of hard bread, and our dog-food being entirely exhausted, and the storm still raging, we could not advance against it or lie still. I reluctantly turned my back upon it, fully appreciating the consequences of not being able to procure a supply of meat.

That day we traveled but twelve miles, dragging the sleds ourselves, and, but for Illia's team, would have had to abandon the articles I took to trade with the Koraks.

We ate the last of our fish that night, and the next morning, though it was snowing heavily, we made an early start, our snow-shoes sinking six inches in the wet snow in the morning, but in the afternoon it cleared up and the snow hardened, so that we were able to reach the station at 10 P.M., having walked forty miles during the day.

Mr. Norton and four of his men had arrived two days before, the other two members of his party remaining at the Orlofka, unwilling to undertake the walk.

Two days after my return the sleds left for Markova, and I sent Mr. Scammon up with them on snow-shoes to send down three deer which had come from Penjina some time

before, and also to hurry off the sleds as soon as they should arrive from Ghijigha.

After this no work was done. Mr. Frost's party had cut two hundred and fifty poles at the Myan Station, and nineteen hundred at his camp on the Olgan; these, with what we cut last year, and with those Mr. Norton cut before my arrival, amount to nearly five thousand poles. Mr. Frost also made six good sweeps for rafting, each thirty feet long, and a good boat to accompany the raft. The boat is light, and will answer admirably for setting fish-nets, etc.; there should be one with each raft.

Mr. Norton, Baxter, and myself kept the traps we had made in order, and with what game we caught in them, and some game Illia and Constantine gave us, we got enough to eat, using one pound of flour at a ration. At this time a large herd of deer passed near Mr. Frost's camp, and he killed three of them. They were, however, like those we received from Penjina, small, poor, and without grease—not fit to eat except in the absence of all other meat. I had made calculations for my provision to hold out until the 1st of May, at which time I expected to receive supplies from Ghijigha for two reasons—first, because I knew you would hurry the sleds back; and, secondly, the men from Markova and Crepast expected to spend their Easter Sunday at home, which would be the 28th of April.

By the 1st of May the weather had become very warm, and the snow was melting rapidly. The birds left the rivers for the tundras, and our rabbit-traps, upon which we relied for meat, began to fail, and still not a word from Ghijigha. We had on hand at that time seven rabbits and twenty pounds of beans. Something had to be done at once. As it would not do to rely upon that uncertain mode of procuring a livelihood, I determined to go to Markova.

Illia and Constantine were going up the next day, believing that the sleds had reached Markova from Ghijigha, and that the natives were drinking tea and dancing out their Easter week, as is their custom. I did not believe the Ghijigha sleds had arrived, but I could send down the deer I had sent Mr. Scammon for, and, if absolutely necessary, purchase some of the horses belonging to the priest for food.

The evening of the 2d I left the station, taking with me one rabbit and two pounds of bread (part of a little I had been saving for sickness), with a sufficient supply of tea. Of tea we always had an abundance, and but for it we would have suffered much more than we did. Fortunately the trav-

ng was good, and I rode half of the way. Without that assistance I should have had great trouble getting through, I was extremely weak and very sick.

The next day, at 10 A.M., the whole population of Markova rned out to greet us, thinking ours were the Ghijigha sleds not one having as yet returned, though some of them had en absent forty-five days. I was asked to the house of rrvil Murdofskoi (where it was likely I could get more to t than elsewhere), and had the breast of a grouse for my pper, which was all I had eaten for twenty-four hours, with e exception of tea and hard bread—the dogs had eaten up y rabbit.

I immediately called upon the priest's wife, and offered to rchase the horses. My object in buying them was not only r food (for we could not use many of them before the sleds ould arrive from Ghijigha), but also for hauling poles to e river bank for rafting, and, later, for distributing them ong the line. She would not sell all of them in the ab-nce of her husband, as it was possible he had already sold em in Ghijigha, but would let me have one for food, should require it. She could only give me a cup of tea and a small ece of black bread, and said that, unless the sleds arrived on, she would have to kill horses for her own family. In ct, the people on this river at that time depended entirely on their fish-nets for food, and, if they did not catch fish at ghts, they went hungry the next day. I could therefore ocure no provisions here other than horse-meat.

Next day, the 5th, I started Illia and Constantine off with e three deer, giving them half of one I found in the store-use for their dogs. These would last the hungry party at e Myan but as many days, but Illia told me he had been ving four deer for his family to eat during the freshet, which would give my party in the last extremity.

Tuesday, May 7th.—No sleds having arrived from Ghiji-a, I sent two men off with a horse which I had purchased, ving to borrow from Ivan Ermechkoff, of Crepast, meat to ve them for the road, he being the only man here or at that ace that was able to furnish me with two days' dog-food for o men. I sent a note to Mr. D. C. Norton not to kill the rse unless forced to do so, as we could use him for hauling les to the river bank when we got to building rafts. Fri-y evening, the time at which I expected the horse to reach e station, I was surprised at the return of one of the men, o said that they had only reached Crepast, and could not oceed farther.

Two sleds had come in that morning from the mouth of the Myan, looking for the Ghijigha sleds. I knew the party must now be out of provision at the Myan Station, so hired these teams, paying them each ten roubles, and, putting them together before one sled, went at once to Crepast and had the horse killed. I got together the refuse dogs of Crepast for another team, and started the two off with the meat the following evening. At Crepast I found two of the men from Mr. Frost's party, whom he had sent up, thinking by dividing the party they could get along better. They told me that, since my departure, little game had been caught.

I returned to Markova that night on snow-shoes, and found two men just arrived from Penjina, who informed me that provisions had been brought to that place twenty days before this date, May 12th; that an American at Penjina owned a good team of dogs, and, by paying enough for them, I could get two others from the natives there. I at once set to work collecting together enough dogs for a team, picking up one here and another there, to take me to Penjina, thinking, in all probability, the Ghijigha sleds were land-bound, and would yet be some time in coming in, as the men reported the land almost bare of snow below Penjina.

The next morning the sleds returned from the Myan with a note from Mr. Norton saying that when the horse-meat arrived they had the last piece of meat in the kettle, and had all become so weak on deer-meat as scarcely to be able to get around.

The traps had failed, and no geese had come. On the morning of the 18th I had collected together the frames of eight animals that might have been called dogs, and a man who was greatly in need of the horse's tail for a fish-net gave me forty grouse for that article, which I would use for dog-food.

I was just ready to start, when Illia drove up with Lieutenant Baxter and two of the men, who had walked upon snow-shoes. They brought me the surprising information that the horse-meat would only last the party two days longer.

As there were five hundred pounds of it, and it was very fat, I had expected it to last twelve or fifteen days. You can judge how well it was relished, and form some idea of what men will eat when reduced to a single article of food, when that amount of horse-meat only lasted ten men six days.

I bought another horse, and ordered it killed at once. I persuaded Illia to go with me to Penjina, and was rejoiced

to exchange my skeleton dogs for his team, and sent the former to the Myan with the meat.

I wrote to Mr. Norton that I had to pay one hundred roubles for the horse, and he must make this meat hold out until my return. (Fortunately, I did not have to pay this price, as the horses had been previously purchased by Mr. Kennan at Ghijigha for twenty-five roubles apiece.)

My provisions for the road to Penjina consisted of four small fish, a small piece of half-spoiled deer-meat—all the population of this place could furnish me—and a piece of horse-meat which I furnished myself.

We left Markova that night, the 15th of May, and on the morning of the 17th, when forty miles from Penjina, we met some sleds returning from Ghijigha. The drivers said that you would leave Penjina that evening, and would pass that point about midnight.

I laid over, awaiting your arrival, until 8 A.M. the next morning, when more sleds came up, and I was told that you would not leave Penjina until that afternoon.

As they could give me food for myself and dogs for the road, and as five sleds had gone on to Markova with our provisions, I turned back, and reached here on the morning of the 20th, so unwell that I could scarcely keep my feet. The evening I sent Lieutenant Baxter, with the best two teams in the place, with provisions for the party at the Myan Station, and on the morning of the 21st was relieved by your arrival.

I am too unwell to give this report the consideration it should receive, and only at your earnest request have given you this plain statement of facts. Very respectfully, your obedient servant,
C. L. MACRAE.

The above report, given exactly as Mr. Macrae submitted it, requires no explanation, except perhaps in relation to the information he received at Markova concerning the arrival in Penjina of an American with supplies and a dog-team of his own on or about the 20th of April.

Without farther explanation, one might infer neglect on the part of Mr. Norton, acting quartermaster at Penjina, in not securing the sleds spoken of and forwarding these supplies, but justice to Mr. Norton, for whose strenuous exertions to procure and forward supplies I shall always feel deeply grateful, requires me to state that the American spoken of was Mr. Sanford, and that his supply of provision was so

small that he could not dispense with a pound of it without imperiling his own and the safety of his party.

It is true, he had a team of dogs, and it might have been possible to procure one or two others; but, even had there been supplies in Penjina to forward, no dog-food was to be had excepting a scant supply of deer-meat, which it would have been necessary to carry with them from Penjina. This, in itself, in sufficient quantity to sustain the teams during their journey to the Myan and back, would have been more than the animals could haul in their feeble condition, even without other load. Every opportunity of forwarding supplies this gentleman had availed himself of, and, had all he sent reached its destination on the Myan, the party at that place would have had no ground for anxiety.

Upon making inquiries afterward, I found that but little more than half of the deer forwarded from Penjina had been received at the Myan. The remainder had been appropriated by the native drivers for the support of their families.



CHAPTER XXXII.

Zeal of the Men.—D. C. Norton's Report: his Party.—Cold Weather.—Frostbites.—Native Endurance.—Difficulty from Freezing.—Myan Station.—Outdoor Work.—Effect of Cold on Axes.—Distributing Poles.—Camps 1, 2, and 3.—Sleepless Nights.—Out of Food.—Retreat to the Station.—In the Field again.—Orlofka River.—No Sleds.—Building Camp.—Erecting Signals.—Snow-blindness.—Trapping Grouse.—Supplies give out.—Colburn and Nesbit.—Off for the Station.—Lost in a Storm.—Scant Supplies.—Arduous Journey.—Breaking Roads.—Cheerless Night.—Home again.—Used-up Set.—Sufferings of Myan Party.—Anxiety.—Baxter's Return.—Sleds for the Myan.—Loveman: his Account and Adventure.—Lost on the Tundra.—Bears.—Despair.—Through the Ice.—Returning Sleds.—Search.—Yelping Dogs.—Narrow Escape.—Arrival of Myan Party.—Forgetful of the Past.—Re-enlisting.—Stock on Hand.—Robinson's Remains.—Starving Dogs.—Break-up of the Rivers.—Off for Myan.—Boating and Towing.—Happy Natives.—Success in spearing.—Feasting.—The River.—Wild Water-fowl.—A bad Place.—Set again.—Illia again.—Deserved Success.—A Deer.—Taking his Stand.—Arousing Sight.—Sympathy.—Constantine.—The Onslaught.—The Victims.—Provoking Circumstances.—Miss Fire.—Small Triumph.—Disasters.—Deer-snares.—Watching for Deer.—Precautions.—Arrival.—Departure.—Ivan Ermechkoff.

THE following extracts from Mr. Norton's Report of the proceedings of himself and party after leaving Anadyrsk for the Myan, early in February, will convey some idea of the difficulties attending telegraph building in the Arctic with nothing but axes and determined natures wherewith to accomplish it. These men displayed so much zeal, and underwent so many discomforts, if not actual suffering, in the prosecution of the work assigned them, that it would be hardly justice not to follow them through a portion of their experience at least.

Mr. Norton, in company with Messrs. Mason, Nesbit, Smith, Colburn, and Scammon, left Markova with sleds and provisions on the 9th of February. In his report he says:

We proceeded the first day to Crepast, and the following morning pushed on for the Myan Station. The first day from Markova the thermometer indicated -54° Fahrenheit, but, as

we had good and abundant food, we did not experience much inconvenience from this seeming extreme degree of cold. The morning of the 10th seemed to be somewhat warmer, at least to me, as I walked all the forenoon with nothing but a short coat and ordinary pants; but when we stopped for tea at noon, I found that the air was intensely cold. We had not felt it on account of the exercise in walking. When we started again after tea, I found I could scarcely keep warm sitting on the narta with two skin coats.

We traveled until about sundown, having only made about half the distance between Crepast and this station, and camped on the bank of the protok, convenient to plenty of dry wood. This proved probably the coldest night ever spent in the open air by any of the Company's employes, having been within one degree of the greatest cold observed by Dr. Kane in his Arctic Expedition (his observation being 69° below zero, and ours 68°).

Even at this intense degree of cold, I observed that the native drivers slept soundly in their fur kuklankers, not appearing to know that it was very cold. I slept none, keeping up the fire by heaping dry wood on, which we had collected in the evening.

I roused the men at half past 2 o'clock A.M.; they made tea, boiled deer-meat, of which we made breakfast, with hard bread, and then started about 3.30 A.M.

We all had great difficulty in keeping from freezing; some were frozen slightly, notwithstanding every precaution: fingers, toes, ears, and noses suffered some damage. The wind, which was very slight, blew in the direction we were traveling—southeast.

We arrived at the station about 3 o'clock P.M. on the 11th, and found that the house was uninhabitable, being nothing but an open pen of logs. However, we set to work immediately, banking up the snow to keep the cold from without, and got our cooking-stove up to lower the temperature within. But all deserted the place except two for more comfortable quarters in the small yurt of a native living near the station.

The 13th was entirely occupied in fixing the house, in which I slept the second night, or rather passed the night, not being able to sleep on account of the intense cold, which still ranged from 50° to 65° minus.

The 14th, 15th, and 16th were spent in chinking the house with deerskin and building a chual. After having finished these we began to experience some degree of comfort.

From this time until the 7th of March, upon which day Mr. Macrae arrived to take charge of the station, Mr. Norton's party were engaged in constructing a small storehouse and cutting poles about the station. The weather was yet intensely cold, and many of his party sustained frostbites, but nothing very serious.

During this severe weather the men found it very hard work chopping into the frozen trees, and, contrary to their expectations, hardly an axe was nicked, though dozens of hickory axe-helves shivered to pieces with the jar occasioned by chopping. The severe cold, instead of rendering the axes brittle, appeared to have an opposite effect, though this may be perhaps attributable to the large amount of electricity in the air, which pervaded the metal.

On the 13th of March Mr. Norton and party started out from the station to cut and distribute poles along the Myan River toward Penjina. This outfit consisted of a couple of canvas tents for shelter, ten days' supply of provisions, and a sled (without the dogs) upon which to haul their supplies from one camp to another, and with which to distribute the poles where wanted. Illia assisted them the first day with his dogs in hauling their supplies and locating their first working camp about four miles from the station. This generous Chuansee also increased their commissariat by a present of a number of fine fish freshly caught through the ice.

By the 23d the party had cut and distributed poles as far as Prospect Bluff, about twenty miles, using three working camps, styled Camps No. 1, No. 2, and No. 3. During this time the weather had been clear and very cold, and their stock of provision had been replenished by the arrival of two reindeer sent from the station. Mr. Norton's notes read as follows:

Saturday, 23d.—Still colder this morning. All agree in pronouncing it as the coldest weather yet experienced during the winter. We intended to have moved camp this morning, but, owing to the intense cold, did not. We suppose it 50° minus, as we had some Cognac brandy frozen in the tent.

Monday, 25th.—Colder than yesterday. None of us slept last night. While eating breakfast around a great camp-fire,

we had to change our tin cups from one hand to the other to keep them from freezing.

As our provisions were nearly exhausted, we concluded to evacuate Camp No. 3 and find more comfortable quarters at the station. We packed what we could not carry with us in the tents, taking with us two days' rations. About that much was left. We fastened on our snow-shoes and struck out for the station, twenty miles distant, each one carrying some portion of the provisions. We arrived at the station at 3 P.M., rather a used-up set, having slept but little for five nights. We found, to our great satisfaction, a fresh supply of provision had just arrived from Markova.

Upon Mr. Norton's return Mr. Macrae went to Markova, leaving him in charge of the station.

On the 2d of April the party again took the field, and, upon reaching their last camp, found all right except the sled, from which foxes had eaten the seal-thong lashings.

They established a new camp, No. 4, five miles farther, the next day. "Still very cold and clear. On the 6th of April Mason froze his feet so badly that he could scarcely get back to camp."

Wednesday, 10th.—Extremely cold. Signs of a snow-storm. Concluded to take one man and proceed to the mouth of the Orlofka River, to see whether any nartas had arrived by that way with provisions from Penjina.

Thursday, 11th.—Mr. Smith and myself started this morning on snow-shoes for the Orlofka. Arrived at the river about 3 P.M.; found no signs of nartas having been there. We erected signals to direct them to our camp, should they come.

Here Mr. Norton found abundant signs of grouse, and, his provisions being low, he decided to move his party up to this place, and to try and subsist them upon game until the expected sleds could arrive from Penjina with stores. On the 12th of April they proceeded fifteen miles, hauling their camp equipage themselves, and the next morning, after a sleepless night on account of the extreme cold, they pushed on four miles farther to the river, which they came upon unexpectedly. Even during this short distance they were obliged to halt once and build a fire for the purpose of warming themselves.

Mr. Norton's report says:

I directed the men to make another fire to keep themselves comfortable, while I went in search of a suitable place to camp, which I found about two miles from where we first came to the river, on an island where there was some shelter and plenty of wood. No signs of caribou yet. I sent Mr. Smith for the caribou and men, while I made a fire, and commenced to shovel the snow away for the camp. We were all suffering from snow-blindness; I could scarcely see at all. While some of the party were making camp, Mr. Smith and myself commenced making and setting traps. We set six during the afternoon, and put up other signals to direct caribou to our camp.

Sunday, 14th.—This morning we had two grouse in our traps. Made thirteen more traps. Signs of an approaching storm; we cut brush and planted it on three sides of the camp, to protect us from the wind. Stormy night; not quite so cold; two inches of snow fell. We ate our last mess of beans for dinner; we have a little deer-meat, 'hardtack,' and about three pounds of sugar and tea.

From the 12th to the 17th the party remained camped at the mouth of the Olgan, waiting for the sleds from Penjina. They constructed a number of other traps, which kept them very well supplied with grouse for food; and at the end of this time, seeing or hearing nothing of the sleds, they decided to try and reach the station. But two of the party, Colburn and Nesbit, were unwilling to attempt the walk on so small an amount of provision, preferring rather to remain behind and risk catching enough grouse to supply their wants. All the party were at this time much stricken with snow-blindness.

April 17th.—Smith, Burton, Mason, Scammon, and myself left camp this morning for the station, after having partaken of a very slight breakfast of deer-meat and one hardtack. The distance is about fifty miles. We only took for the road three hardtack each, a little sugar and tea, and set out, after bidding Colburn and Nesbit good-by, expecting to reach the station in one day. A short time after starting a storm came on, with snow and wind, so that all landmarks were entirely obscured; but, fortunately, we were able to reach the point which we had cut and distributed poles for the line without losing our way. We now had something by which to direct our course through the storm, which continued, and, if

any thing, increased in fury. We reached Camp No. 5 about noon, and made tea and ate one of the hardtack each. The storm had now abated some, and the sun shone out for a short time, when we hoped that we would have no farther trouble in keeping on our course. But shortly after starting the storm commenced with more violence than ever, blowing the snow directly in our faces, causing us to lose our way, and lengthening our journey by three miles at least.

We were becoming well tired out after finding the line again, which we did near sundown. We now made tea again, and ate our hardtack, still intending, if possible, to reach the station, which was yet about eighteen miles distant. We again set forward, making good headway. Up to this time I had taken the lead in breaking the trail, and I now began to feel exhausted, so fell back and let Mr. Mason take the lead, which he only kept for two or three miles, and then fell back, Burton taking the lead. We found the tea and hard bread were not very good for strengthening exhausted muscles. Night was rapidly coming on, and we were still about twelve miles from the station. We were now staggering rather than walking, feeling rather than seeing our way. Sometimes we were on the trail and sometimes off, dragging our weary legs along through the deep snow.

At about 10 P.M. we arrived at Camp No. 2, and could go no farther. We stopped, and with great difficulty made a fire, some of the men in the mean time trying to make a shelter out of brush to protect us from the storm. We partially succeeded in the shelter, but the wind changed so it did but little good. We made our cups full of tea again. This truly Siberian solace warmed us up some, and we began to feel more comfortable. We lay down in the shelter of the brush, but not to sleep, as I knew that it would not do to go to sleep, as we might become so benumbed by the cold that we might freeze to death.

After lying down for an hour, I roused the men up, and we went out in search of dry wood with which to make a good fire. We found plenty close by, and soon had a good fire, and were sitting around it discussing with empty stomachs the chances of finding any thing to satisfy the cravings of our appetites. We watched anxiously for the first streaks of the coming dawn in the east with eager and impatient eyes. We were cheered by the gray of morning about 3 o'clock, and commenced immediately to prepare our morning meal, which consisted of tea "straight." After drinking it we prepared for the last struggle to reach the station.

We had the worst portion of the road to pass over this morning, some deep ravines having to be crossed. In going over some of these the men would stagger and fall, and could not get on their feet again without assistance. However, the knowledge that we were within only a few miles of the station kept our strength up equal to the demand on it. We reached Camp No. 1 about sunrise, and threw ourselves down for a little rest before going farther. I urged the men to take only a short rest, as I knew the longer we remained without moving the less inclination we would feel to do so. After a few minutes we started forward again. We now put Scammon in the lead, as he seemed less exhausted than any of us, having had the benefit of going behind, where the trail had been thoroughly broken. In this way we reached the station about 7 o'clock A.M., twenty-four hours from the time of leaving the mouth of the Orlofka. Had the distance been twenty miles farther, I doubt whether any of us would have reached it. Some of the men, when they came to the bank of the river, could not get up without assistance.

We were glad to find that a supply of provisions had arrived a day or two before from Penjina. After remaining at this station until Lieutenant Macrae returned, I sent Illia and Constantine with their nartas to bring Colborn and Nesbit down. They did not suffer much from hunger, having been able to catch enough grouse to keep them pretty well. In a few days after I sent the same men up again to bring down our camp fixtures, which they did.

I will take this occasion to bring to your favorable notice, and, through you, the officers of the Company, the many kind favors we have received from Illia on many occasions. We would be almost reduced to the last mouthful when a present of fish or deer-meat would be sent in by him. I personally shall ever feel grateful to him for the many favors received at his hands. Very respectfully, etc.,

D. C. NORTON.

It was not until after this date that the party on the Myan experienced their greatest anxiety. At no time were they altogether destitute of provisions, though on several occasions they were reduced to their last day's allowance of food, when, by the timely arrival of supplies from Markova, or a present from Illia, or a fortunate catch with their traps, their stock would again be increased. But these precarious and uncertain resources, together with the faint glimpses they from

time to time caught of the monster "famine," caused them great anxiety, and the whole party became very low-spirited. This was much increased by weakness and inertia resulting from the sickness with which they were nearly all afflicted.

The delay occasioned to the provision sleds from Ghijigha by severe storms, which raged for weeks without cessation in the neighborhood of the Okhotsk, was extremely unfortunate. Upon reaching Penjina, and finding the first return sleds still there, I experienced the greatest anxiety for the safety of the Myan party, and when, upon arriving at Markova, I found Macrae, and learned that they had managed to sustain life during the interval, my relief was equally as great.

On the 22d of May, Baxter, who had started for the Myan with supplies immediately upon the arrival of the sleds, returned to Markova, having been unable to reach the station on account of open water encountered in the protoks.

As our stores were now all in Markova, and it would be easier to bring the men from the Myan with the present difficult roads than to carry all our provision to that place, I immediately dispatched a sufficient number of sleds for that purpose under Loveman, a lad of seventeen, one of the party then in Markova. Loveman was anxious to go and test his ability for dog-driving, so I gave him charge of the team I had procured in Penjina from Sanford, and he took his departure with the others.

At 1 A.M. on the morning of May 26th we were awakened by the entrance of Loveman into our quarters on his return from the journey with the Myan party, but he was a sorry-looking object, and, in spite of a half-solemn, care-worn expression on his countenance, we had to laugh outright. He had on but two articles of apparel—a pair of old chasseees, or fur socks, reaching a little above his ankles, and an old kuklanker turned inside out, and hanging from his shoulders in rags, reaching almost down to his naked knees. His head was bare, hair uncombed, and his soiled face wore a haggard, serious expression, through which one of his usual good-natured smiles bubbled to the surface in response to our laughter.

"Well, Loveman, so you are back; but you look as though you had a hard trip of it," said Macrae.

You ought to have seen me yesterday on the tundra, and would have thought I was having a bad time. I thoughtoose was cooked, sure; and, what scared me all the worse, two bears sitting up on snow-banks and looking at me ough they wondered if I was good to eat or not. I ght I was gone then, sure. I tried to make my dogs run, they would not do it, and then I thought I would run leave them behind; but the first bear I saw didn't look hungry, and didn't move, so I kept still too. It wasn't minutes before I saw the other one, and then I thought I got into a nest of them. This one was bigger than the r, and when he saw us he sat up on his hind legs and led; but my dogs pulled the other way, and I was mighty when he was out of sight. You ought to have seen me. ok all over just like a leaf, and after that I thought every ; I saw was a bear."

But where were the other sleds?" I asked.

Oh! they had gone to the Myan. I hadn't seen them for days. But I forgot to tell you about it. The first day we was behind the other sleds, because my dogs wouldn't , and I thought they would go better behind the others. along first-rate with them until we had to go through a f brush for about half a mile, and then some of the dogs running on one side and some on the other side of the , and got all tangled up. I thought I never would get igh. By-and-by I got through, though, and there wasn't d in sight; and, what made it worse, the crust on the r was so hard that they didn't leave any tracks behind t. But the tundra was all cut up with gullies, and I ln't see very well, so I didn't think the other sleds were far off. But I could not find them, and wandered about ight. In a little while I got so mixed up that I didn't v which way to go, the country was so alike in every di-on."

What did you do then?" I asked.

Then I got hungry, and stopped to make tea, but I forgot arry any matches with me, so didn't have any thing to out six hardtack I had put in my pocket to nibble on the . The other nartas had all the rest of the provisions them. I didn't know which way to go, so I let the dogs

go where they pleased, and laid down to get a nap; when I woke up I couldn't tell whether it was day or night, it was so light all the time. That was the time when I saw the bears. I began to get awful hungry. I had eaten up all my hardtack, and didn't have any thing else, so I kept the dogs moving, hoping we would come somewhere, but we didn't, and, what made it all the worse, I broke through the ice on a pond and got my clothes all wet; then I had to take them off and put them on my sled to dry, and put on these old things, and roll up in my blankets on the sled to keep from freezing. You bet I was scared then. I was almost starved, and had given up all hope of finding Markova or of ever being found, and my dogs were used-up too. Then I got to thinking about starving to death, and didn't like the notion. I wished I had never heard of the Telegraph Expedition. Pretty soon I fell asleep, and the next thing I knew I was surrounded by the sleds coming from the Myan with all the men."

This is Loveman's story as he told it to us. Without doubt the poor boy's chances for life were very slim, and it was merely accidental that he was ever found. He was out nearly three days.

The other sleds on the way to the Myan did not miss Loveman until night, and then made search for him, firing guns, etc., but were compelled to renew their journey without him, thinking he had returned to Markova.

On the 25th, as they were returning across the tundra, the snow was soft and traveling difficult, and their dogs kept up a yelping while dragging at the nartas. These yelps saved Loveman, as they attracted the attention of his dogs, who, upon hearing them, started off with the sled in the direction from which the sound came.

The party with the train were much surprised at seeing a solitary sled approaching from the distance across the tundra, particularly as no driver was to be seen, and when the dogs were recognized to be Loveman's team, surprise gave way to alarm and anxiety. The sled caught up with the train, and, there being no movement on it, several of the men rushed up, and, throwing off the deerskins, discovered Loveman, who was just awaking. It was a joyous though unex-

sted meeting for all parties, particularly so to Loveman, who had abandoned all hope. He said he thought it was a sham, and for some time did not dare to believe his eyes. The knowledge that there was a good supply of provision awaiting their arrival at Markova very much revived the spirits of the Myan party, so much so that all whose term of service expired that spring made fresh agreements to remain another year. They now laughed over their past experiences, and many declared that they preferred horse-flesh to poor car-meat. Upon the arrival of these last sleds they were again out of supplies altogether. Mr. Frost was just on the point of killing a dog, which he proposed to pass off upon his men as a rabbit, if sleds should not immediately arrive with provision.

We now had in Markova tea, sugar, flour, rice, and beans sufficient to last us until the 15th of July, by which time the vessels would certainly be at the mouth of the river, and soon enough to sustain the party during the freshet, after which deer and fish could be obtained in abundance.

Poor Robinson's remains still lay buried in the snow-drift Telegraph Bluff Yurt. It had been my intention to procure sleds and carry them to the Gulf Station for interment, but this I had found absolutely impossible. Now, as soon as the freshet should subside, I proposed taking a carbass and proceeding down the river for that purpose.

The arrival of the Ghijigha sleds inaugurated a change in the condition of the inhabitants, and they gave themselves up to eating and dancing. They appeared to be well supplied with every thing in the provision line but food for their dogs. These poor animals were yet in a most pitiable condition, and many of them subsisted almost wholly upon the carcasses of their dead companions. We found it necessary to lock up every thing edible, not even excepting our fur clothing, and even to bar up our "gut" windows at night, as some of the creatures had learned the art of jumping through them, and carrying off any thing they could lay hold upon. This spring was a repetition of the last: long days, beautiful midnight sunsets, the arrival of water-fowl, and, finally, the grand breaking-up of the ice on the rivers. This last occurred several days earlier than on the previous year. Last

year the river did not open until June 6th, and on the corresponding day this year it was sufficiently clear of ice for our party to leave Markova with all their supplies for the Myan Station.

We went in three carbasses by the Myan Protok, stopping the first night at Crepast, and camping the second near the junction of the protok with the Myan River. On the Myan we encountered a powerful current—so strong, in fact, that we could make no headway against it rowing, and were obliged to put lines of seal-thong ashore and tow the boats. This was necessarily very slow and irksome traveling, and frequently disagreeable, as the men had to wade in the water a good portion of the way.

As we advanced up the stream we began to encounter the habitations of many of the natives, who had preceded us for the purpose of spearing deer. At one of these places frames of poles extending along the bank were literally black with drying meat, and upward of fifty deer freshly speared were lying in the water, tied up to shore, waiting to be dressed and cut up. The natives had already killed one hundred and twenty at this crossing. It was a novel sight for many of our party, and must have been a most cheering one for the natives themselves.

In fact, every where we encountered them they were doing nothing but eating, and, as we approached, they would joyously point to the stacks of deer-meat, exclaiming, "Look there, barin, no more starving now."

At intervals all along the river we saw the white carcasses of deer floating on the water, tied up to shore, and partially covered with brush to protect them from the sun. In this way they will keep many days; but a slight taint does not spoil them for the native taste. Several hundred of these animals had already been killed in this locality.

The Myan here is a very winding stream, with short bends, and the neighboring shores are cut up by innumerable protoks. Geese swarmed the low mud shores by thousands. Upon our approach they rose into the air, blackening the heavens, and causing the whole atmosphere to vibrate with the thunderings occasioned by their flapping wings, and creating a din with their startled outcries that could be heard

for miles. Other water-fowl were also very abundant. Every few moments our attention would be attracted by the whirring sound made by flocks of ducks of every variety rushing by over our heads, and the trumpeting notes of swans as they came slowly sailing in pairs down the valley.

Three or four miles below Myan Station we came upon the temporary encampment of Illia. At that point was a large bend, just below which we encountered a stronger current than we had met with elsewhere during the trip. It was with the greatest difficulty that our boats could be towed against it, and, besides, the banks were very unfavorable for the men to walk upon, being high, steep, and covered with brush. The two other carbasses which preceded ours succeeded without much difficulty in passing this bad place, but when we had towed about half way up our seal-thong gave way with the strain upon it, and, before two of us who were riding in the boat could get in to shore again, we were swept back to the starting-point.

Once more the line was attached, and this time we effected the passage.

This incident, though trivial in itself, was the cause of our witnessing a very pretty as well as novel sight which the other boats missed. On the opposite shore Illia and another native had a small brush hut, from which they kept constant watch for the crossing of deer. Seeing our boat, Illia paddled across in his vetka, and joined us at a point where was an eddy in the current, half a mile above his hut.

He informed us that he and Constantine (his companion) had already killed upward of two hundred deer. If any of the natives deserved success, he did, for he was the most disinterestedly generous person I had ever had the good fortune to meet. We talked about fifteen minutes, and then started on, he paddling back across the river, but had proceeded only a few yards, when, stopping his vetka, he motioned us to stop also. In a moment a large buck came in sight on the point of a bend one hundred yards distant ahead, and, after scanning the river, immediately turned back into the woods. Illia then hurried across, and took his station at the foot of a steep bluff, near where the deer, in swimming, had to land, as for nearly three miles the bank was high and steep, and af-

forded but this one place for them to get out. We waited some minutes, and, being able to see nothing, started on, when Illia again motioned us to wait. The next minute, just ahead of us, between forty and fifty fine deer gracefully sailed out into the stream from beyond the bend, going directly for Illia's vetka. It was a beautiful sight to see them noiselessly gliding across the river in a solid phalanx, with their wide-spread antlers swaying gently back and forth with the motion of the waves. Nevertheless, we could not but feel some sympathy for them. The unsuspecting creatures gradually drew near to the cliff, beneath which we could see Illia sitting in his vetka, as still as the rock above him, with his long light spear resting over his shoulder, and his paddle strongly grasped, ready to make the quick strokes that were to bear him into the midst of the herd. In the mean time we saw Constantine launch his vetka at the lookout, half a mile below, and, with crouching figure, glide rapidly up the stream, closely hugging the shore to escape detection; but he was too late, for now the deer were within six rods of Illia. Suddenly all was life. His glistening paddle-blades cast a shower of sparkling water-drops about the vetka; it plunged forward, and in an instant the long spear was dealing death-strokes with surprising rapidity in the very midst of the bewildered herd. Before they could recover their surprise twenty-three of them were lanced; the remainder scattered, some continuing on their course, and about a dozen heading back across the river directly for our carbass. We seized three of our breech-loading carbines from the boat as quickly as possible, and jumped ashore just as the first deer stepped on land, one hundred feet distant. I leveled my gun, and, getting a good sight, pulled the trigger, but there was no report, and the deer slowly trotted past me and disappeared in the woods close by. I leveled on two others in the same way, within very short range, but the hammer of my gun refused to fall, having got rusted on the trip. Nor did my companions have any better success. Three loaded rifles were in our hands, and yet five deer passed so near to us that they almost splashed water upon us as they waded out on shore. I will not attempt to convey an idea of our feelings; suffice it to say that, in my opinion, this was one of the occa-

sions on which a man is excusable if for a moment his tongue gets the best of him.

But other deer were yet swimming toward us, and I made desperate efforts to discharge my gun, to be prepared for them. At last I succeeded, the ball sailing harmlessly across the river, and then reloaded. By this time three other deer were about reaching the shore within a stone's-throw of us, and the three waded slowly to land, and trotted across the beach into the woods under the very muzzles of our guns. This was beyond endurance. Again I got the gun off when there was nothing to shoot at, and reloaded in time to drop the last one of a band of five that swam toward the boat. We were all in too bad a humor to be elated by this, so small a triumph, and, having a supply of meat in our boat sufficient for present use, left the animal lying where it fell, for Illia to make use of.

In addition to the twenty-three speared, three others were caught in snares suspended over the path which led up the steep bank. These snares were simply slip-nooses made of seal-thong, in which the deer's antlers became entangled. Had Constantine, Illia's companion, seen the herd in time to help kill them, not one could have escaped. The river was about five hundred yards wide.

While watching for deer the natives observe the greatest quiet. They will sometimes allow days to pass without building even a fire, if the wind be blowing toward the direction from which the deer are migrating. The scent of smoke will often turn them back, or cause them to pursue some other route.

We reached Myan Station at 10.30 P.M. of June 10th. On the 12th, having made the necessary arrangements for rafting poles, in company with Mr. Jared Norton and Ivan Ermechkoff, a native of the Lamutka tribe, I left the station, bound for Telegraph Bluff Yourt, on the Anadyr, to secure the remains of Robinson, and have them interred at the Gulf Station, on Golden Gate Bay.

Ivan, our native companion, had proved a valuable friend during our past winter's miseries. He was one of our raft crew the previous year.

CHAPTER XXXIII.

Down the Myan in a Carbass.—Rain.—Hunting Eggs.—Avaram.—Providing for Rafting-parties.—Ruined Watch-tower.—Lone Mound Yout.—Approach to Telegraph Bluff.—Magpie.—The Remains.—Interment.—Supplies give out.—Gull's Eggs.—Gale.—Ticklish Passage.—Camp Macrae.—Wanton Destruction.—Demolished Vetka.—House unroofed.—Audacity of a Bear.—Golden Gate Bay.—Ice.—The Wreck.—Blue Boat.—Our Welcome.—Launch of the Wade.—Renovated.—Health of Party.—Death of Geddes.—Dixon.—The Burial.—Extracts from Robinson's Journal.—Fearful Poorga.—Kelly lost.—Another Adventure.—A Night on the Tundra.—Frozen insensible.—Party to the Rescue.—Amputation.—Rude Implements.—Break-up of the Ice.—Damage to Wreck and Change of Position.—Effects of extreme Cold on Metals.—Electricity in the Air.—Auroras.—Mr. Farnam and the Commissariat.—Outdoor Exercises and Sports.—Loading the Steamer.—First Trip up the Anadyr.—Curiosity of the Tchutchus.—Huk-ho!—Reinterment of Robinson's Remains.—River Navigation.—Celebration of the Fourth of July.—Macrae.—First Raft.—Harsh Treatment.—Arrival of the Clara Bell.—Work abandoned.—Disappointment.—The Enterprise.—Major Wright.—Last Trip of the Wade.—Outrageous Economy.—No Provision.—Captain Redfield.—Mason.—Leave-taking.—Farnam's "Gash."—Farewell.—The Graves.—Departure.—Plover Bay.—Old Friends.—"There she blows!"—Killing and cutting up the Whale.—Ravencus Natives.—Tongue and Bone.—Redfield's Delight.—Homeward bound.

FOR our boat-journey down the Anadyr we took the smallest of the three carbasses used by the party in coming from Markova. It was an old and not very safe craft, but, for mild river navigation, we thought would answer every purpose. The current being with us all the way, we could float toward our destination night and day if the weather should permit, and, if it should be too rough for traveling, we could afford to lay by at intervals. Not wishing to diminish the supply of provision at Myan Station, we contented ourselves with a little hard bread, tea, and sugar for the journey, thinking we would no doubt be able to procure meat and fish at the camps along the river.

At 11.30 A.M. on the 12th of June our boat was loosened from shore and our journey commenced, Ivan taking the first pull at the oars, and myself as steersman. During the whole trip we alternated, each taking his turn at the oars, steering-

paddle, and his comfort. We stopped long enough at Illia's to get some deer-tongues and fresh and jerked meat, and then continued on our course until 10 P.M., when we pitched our canvas tent on the east side of the Myan, just below the mouth of the Myan Protok.

The next day it was quite windy, but we traveled until 9 P.M., and camped upon an island in the Myan. The 14th it rained hard all day, so we did not take our departure until night. From that time we traveled almost incessantly, day and night, until our arrival at the mouth of the Baillee River, merely stopping from time to time to make search for geese and duck eggs on some of the small islands. These we found in the greatest abundance, but, out of several hundred, only one was good to eat, according to our notions, though Ivan fared sumptuously.

At the mouth of the Baillee old Avaram and several companions had been also securing their share of migrating deer. He was in such good spirits that we actually succeeded in making him laugh over the time he capsized his vetka in Vacarana Protok, when the birds whistled.

After making arrangements with these natives to supply the rafting parties with fresh meat as they should pass by, we continued our course, stopping by the way to visit an old wooden watch-tower just below the mouth of the Baillee. At this place stood a Russian settlement a great many years ago. A sentry was formerly kept continually posted on the tower to watch for the approach of hostile Tchutchus. This structure was nothing more than a small platform, erected on four posts about twenty-five or thirty feet above the ground. It was evidently very old, being moss-covered and rickety, and had such a tumble-down appearance that we did not dare to ascend it.

Our champion Yandenkow, the Tchutchu, had left Oochostika by the time we reached that point, so we did not see him.

At the "Lone Mound" Yourt, between Oochostika and Tchi-kiowa, a bear had taken up his abode very unceremoniously. His bed of brush lay at the very entrance to the house, but his lordship happened to be out when we called, and, not having time to wait for his return, we pushed on. At length we approached Telegraph Bluff Yourt, but not without expe-

riencing feelings of dread. The snow had by this time entirely melted from the tundra, and we feared lest we should find that the remains had been molested by animals. As we approached, the only sign of life that met our vision was a solitary magpie perched on the ridge of the hut, keeping lonely vigil over all that remained of our friend. The moment the boat touched shore we ran eagerly up the bank to the hut, and, greatly to our surprise as well as gratification, found the body just as Macrae and party had left it, with the exception that the snow shroud had vanished. The boughs that had been planted in the snow around it had afforded ample protection from the sun's rays. We had brought a pick and spade with us from Myan Station, and, after digging a grave, gave the body a temporary burial, intending to send up and have it removed to the Gulf Station the first opportunity that offered. This was on the 21st of June—just four months after his death.

Up to this time, with the exception of two days' rain at the commencement of our journey, we had been favored with beautiful and generally calm weather; slight winds had, however, from time to time somewhat impeded our progress; but a little wind was by no means objectionable at this season of the year; it served as a great protection against the clouds of ravenous mosquitoes that were now beginning to infest every cubic inch of air within stone's throw of the earth.

Below Telegraph Bluff Yourt we had not only winds to contend with, but the tides also much impeded our progress. This proved somewhat annoying, as more time had been consumed in making the journey than we had allowed for, and our scant supply of provisions was reduced to two days' supply of tea and sugar, and a few pounds of tainted jerked meat. Nevertheless, we made tolerable headway until after rounding the bend in the river near Chimcha Mountain. From this point, it will be remembered, the river turns abruptly to the east, and flows in that direction for about twelve miles to Camp Macrae. Here we were met by a furious gale of wind sweeping up the river from the sea, and raising such waves that we did not dare for a moment to risk our dilapidated old carbass among them. A small island near by, of not more than a quarter of an acre in area, afforded us shelter and room

r pitching our tent. To our astonishment, the ground was generally covered with gulls' nests. Our caps and handkerchiefs were soon filled with eggs, but these, like the goose eggs we had found above, had just passed that point when they are condemned as unfit for use.

Here we were detained until the next day, and, as then there were no indications of a lull, we attempted to track along the most protected shore. During this and the next day we succeeded in working down to a point of land three miles above and on the opposite bank of the river from Macrae's old camp. But now the most serious obstacle presented itself. The river at this point was upward of a mile and half in width, and the gale of wind, blowing against the strong current, produced a short chopped sea, rolling up waves of sufficient magnitude to make navigation somewhat dangerous for a much better boat than our moss-chinked, two-sided carbass. The night before we had consumed our last ration of jerked meat in preparing a soup for dinner, and no other food was to be had until we could reach the old camp, where Macrae had been obliged to abandon the beef and pork on his winter journey up the river.

It was out of the question to think of making a passage directly across the river broadside to the waves. We could not have proceeded one hundred yards before being swamped. There was no other alternative but to make a straight cut for camp, four miles distant, keeping the boat well headed toward the wind: this we attempted, not without great reluctance, but finally reached the opposite shore, perfectly wet through with spray, and our boat half filled with water.

Upon reaching camp, our first steps were toward the hut to procure some beef and pork to appease our appetites, which were by this time unpleasantly sharp. A display of wanton destruction met our gaze, much like that of the year before, at teeth and claw marks on all sides showed that this time other than human agency had been at work. My vetka, which had been left here the previous fall, was clawed to pieces, and nearly half the roof of the cabin was destroyed. Beside, the beef and pork barrels left by Macrae had been shattered to pieces by the bear or bears, and every ounce of the pork had been devoured, considerably to our disappoint-

ment. Mikhael Ivanitch evidently did not relish the beef so much, but had rolled and tumbled it into every part of the room; and, finally, after disposing of every thing to his taste, was so much pleased with the "tout ensemble" that he had made him a bed and settled down to a quiet possession of the establishment. After his pork rations had given out he had changed his quarters, as none of the signs appeared less than a week old.

The next day, June 26th, the gale subsided, and we renewed our journey along the open bay below to Cape Large, the point of land bounding the entrance to Golden Gate Bay on the west. Up to this time we had encountered no ice whatever, but the entrance to this bay we found nearly choked up with masses of it, which had been sweeping back and forth with the tides all the spring. Through this we effected a safe passage, keeping a sharp lookout as we rounded the point for some signs of the wreck, the fate of which we were curious to know.

At length we descried her, apparently unchanged except in her position. She was, to all appearances, much nearer the station than in the fall. In a few moments the station building came in view, and shortly afterward we could see groups of men gathering on the beach, apparently watching our boat, as if uncertain what to make of it. Now they rush for the blue boat, which they launch, and in a few moments we are welcomed back to the station by a crew of as healthy, hardy, and happy-looking individuals as I have ever seen. They were in the best of spirits, from Mr. J. H. Robinson, the officer in charge, down, having only an hour before launched the steamer *Wade*, which they had thoroughly repaired, freshly painted, and in many respects greatly improved upon her former condition. Under the able direction of Mr. Forbes, the engineer, her boiler and steam-pipes had been covered with old rope and canvas to keep the heat in them, and her engines overhauled and painted. Several changes had also been made in the construction of her deck-house with regard to draught for the furnace, and comfort for the officers and men attached to her.

Both the land party and the crew of the wrecked barque were in the best of health and spirits; but, as I approached

the station, my eyes met an object which proclaimed too truly that they had not altogether been exempted from sorrow and misfortune during the past winter. A low mound, with a neat head-board and appropriate inscription, announced the last resting-place of one of their party—Charles E. Geddes, carpenter of the barque *Golden Gate*, who died April 28th, at 5 A.M., after a long and protracted illness, of remittent fever, complicated with acute rheumatism.

Mr. Robinson, in his report of the winter's proceedings, states that "every effort that could be made to save his life was made by Mr. Dixon, who was up night and day with him from the time he took seriously ill until his death. His body was buried April 30th, at 10.30 A.M., under the supervision of Captain Harding, with every respect that could be shown to the memory of the deceased." The Episcopal service was read over the grave by Captain Harding in the presence of the members of the party, who attended in full uniform.

With this exception the health of the party had been very good, though some of them suffered very much from frost-bites. Mr. Kelly, one of the wrecked passengers of the *Gate*, was particularly unfortunate.

The following extracts from Mr. Robinson's report and journal briefly sum up the experiences of the party and the most interesting features of the winter since Mr. Macrae's departure from the station on the 18th of February:

The evening after Lieutenant Macrae's departure a heavy storm sprang up from the southeast, which kept on increasing until the morning of the 21st, when the wind suddenly changed to northwest, and blew the most fearful gale we have experienced during the winter. The snow drifted so thickly that we were unable to go a hundred yards from the house without being lost. M. J. Kelly, Colonel Wicker's clerk, was lost during the morning in attempting to go a distance of about one hundred yards from the station. Immediately after he was discovered to be missing guns were fired to attract his attention, and several of the party started in pursuit, but failed to find him, as they dared not go out of sight of the house. Mr. Kelly, by accident, found his way back, after being out about half an hour, so badly chilled through that he was unable to leave his bed for several days. Several other members of the party were lost during the day,

but found their way back to the station without suffering to any great extent.

During this time Mr. Robinson told me that they found it necessary to stretch a rope from the station building to the sailors' house, a distance of fifty yards, that the men in the latter might not lose their way while going to their meals.

March 31st.—Weather clear and very cold; the thermometer at 6 A.M. -50° Fahrenheit. Last evening Mr. Kelly asked permission to leave camp for two or three hours, stating that he was going out for a walk. I retired at the usual hour, supposing he had returned, as the men did not report him absent. At 7.30 this A.M. we were all startled by a report that Mr. Kelly was out on the ice so benumbed that he could not walk. Several of the men were immediately sent in pursuit, and at 8 A.M. returned with him frozen stiff, and life almost extinct—his senses and speech were gone. After rubbing the frost out of him, which took half an hour, consciousness returned, so that he was able to utter a few indistinct sounds. By noon he had so far recovered that he was able to eat a little light food. He and Mr. Young, one of the sailors, visited a Tchutchu encampment about three miles from the station late last evening, and, in attempting to return after dark, lost their way, and wandered about over the tundra and ice all night, not knowing where they were. At daybreak they saw the ship, and found they were eight miles southeast of the station. Mr. Young succeeded in reaching camp in a half-frozen condition, but Mr. Kelly's strength failing him when within a mile of the station, he sat down to rest, where he remained unconscious until picked up by the party in pursuit.

On the 17th of April Mr. Dixon amputated the fore and middle fingers of his right hand, they being so badly frozen that all Mr. Dixon's efforts to save them proved fruitless. Mr. Dixon deserves great credit for the able manner in which he performed the amputations, having nothing to perform the operation with but the most rude implements. These consisted of a handsaw and jackknife to do the cutting with, and a pair of old rusty tweezers to pick up the arteries. The operation was performed in two hours' time, the patient being under the influence of chloroform. Mr. Kelly is now rapidly recovering.

On the 23d of June the ice in Golden Gate Bay and Wade River broke up without any noise whatever, and on the 27th the bay was clear. About half of the ice that went out

on the ebb came back with the flood tide. This I think was caused by a heavy easterly gale that blew from the 23d to the 26th, and the small quantity of snow that fell during the winter being insufficient to create a current on Wade River strong enough to counteract the flood tide. The Tchutchus informed me that the ice generally ran out on the flood as well as the ebb tide.

On the 24th of June the wreck was driven to within two miles of the station by the pressure of the ice, which left her grounded in four feet of water at low tide, and nine feet at high tide. She was harshly treated by the spring ice, having portions of her port bow and starboard side carried away.

Speaking of the effects of extreme cold upon metals, Mr. Robinson says:

My observation of the contraction of wire during the coldest weather we had (-65° Fahrenheit) convinces me that it will require three hundred and sixty pounds of wire to the mile* to stand this severe climate. From observations taken at the temperatures of -62° , -64° , and -65° Fahrenheit, I found the contraction to be three inches to two hundred and ten feet, or six feet three inches to the mile. From some very imperfect observations made during the winter with common wrought iron, I am led to believe that the large quantity of electricity in the air during the winter months pervades iron to such an extent as to prevent it from becoming brittle, as is usually the case in cold climates. However, if this be true, it will not prevent the contraction of the wire, but will make it less liable to break when it tightens up in winter.

The amount of electricity in the air, even during the summer months, is surprising. Mr. Robinson, at the time of my arrival, had constructed about three miles of telegraph line, and had put up an instrument and battery in the station. There was no time scarcely when we could not dispatch messages over this length of line without the aid of the battery, though the natural current of electricity was hardly strong enough at all times to operate reliably.

During the past winter many auroras had been seen both here and at Anadyrsk, but none of surpassing beauty, al-

* Ordinary No. 9 telegraph wire weighs three hundred and twenty-three pounds to the mile.

though they were almost a nightly occurrence. They were, however, of short duration, rarely lasting more than half an hour. Strange as the fact may seem, I did not witness one of these phenomena during my first winter's journeyings in the vicinity of the Okhotsk Sea, though Messrs. Kennan and Dodd, while on the Anadyr, were treated to several most gorgeous displays.

Thanks to Mr. Farnam's able management of the provision department, the stores at the station had held out finely, and there was yet a very good supply on hand—enough, at least, to last until the arrival of the expected vessel, though the variety was much reduced.

At the approach of warm weather the deer-meat remaining on hand became unfit for use, but, by the industry of the men, the table was very well supplied with geese, and ducks, and fine trout taken from the tundra lakes.

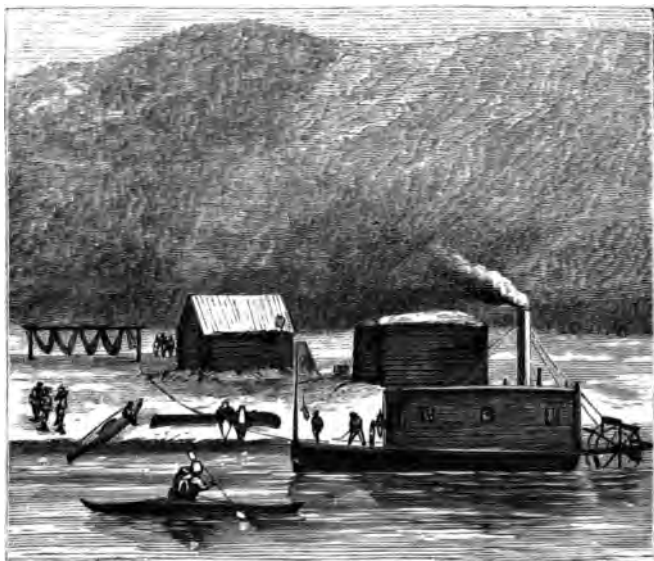
All during the winter, whenever the weather permitted, the men had devoted much time to hunting and fishing, but generally with poor success. They, however, persevered in their efforts, more for exercise than any thing else, and frequently resorted to the smooth ice on Wade River to play base ball, run foot-races, and engage in other games for the same purpose. These sports they sometimes indulged in at a temperature as low as -52° Fahrenheit. This abundant out-of-door exercise was the undoubted cause of the remarkably good health of the party.

Mr. Jared Norton and myself reached the station on the 26th of June, after fourteen days' sailing. The 27th was devoted to loading the steamer with coal to be deposited at Oochostika. Her small capacity would not allow her to carry much load in addition to the fuel necessary for a trip up the Anadyr and back, and by making deposits of fuel at this point from which to replenish her supply, this difficulty would be obviated. The same day a neat coffin was made to receive the remains of Robinson, and on the 28th we started for our first voyage up the Anadyr with steam.

The Wade worked much better than during the previous fall, and we encountered no difficulty whatever until we approached the mouth of the Anadyr, seven or eight miles below Camp Macrae. Here we found the water very shoal (as,

in fact, it is all through the inner bay we had just crossed), and the channel was very intricate, so much so that we grounded a number of times, though the draught of the *Wade* was only two and a half feet. We anchored a number of buoys at this place, but the strong current of the river immediately swept them beneath the surface.

Above Camp Macrae we had much less difficulty, the channel being deep and wide, though we grounded a number of times, as was naturally to be expected, until we had become familiar with all the shoals. After three days' running against the current, stopping once for a few hours to readjust some of the machinery which was a little at fault, we reached Oochostika and landed the coal, together with some supplies for the rafting party.



OOCHOSTIKA.

This was the first time since the creation that these tundra banks had ever responded in echoes to the shrill screaming of a steam-whistle, and it was not surprising that the geese and ducks, startled by the strange sound, arose from their quiet lakes and sailed rapidly far away across the tun-

dra, or that foxes and the polar hare sprang from their places of concealment and scampered off to other shelter. Even the wild reindeer that dotted the distant hills threw up their heads in astonishment, and then fled in dismay, when, for a second time, the valve was opened, and the escaping steam trumpeted forth the approach of the vanguard of civilization. But their alarm was premature. A few weeks afterward that portion of the world had reassumed its original state of quietude, undisturbed except by the old and familiar screams of water-fowl, together with the barking of foxes, baying of wolves, and such other sounds as had been allotted to it from the time of the commencement by the great Creator. The little *Wade* was the first steam craft that ever plowed these waters, and will probably be the last. Centuries may roll by, and the present age be swallowed up in the dim past before she has a successor; or it may be—unless, by some great terrestrial convulsion, or by a long, slow process of nature, this soil and climate become better fitted for the abode of civilization—that the next shrill trump which shall resound over these desolate wastes will be that which shall startle both the living and the dead of all climes and ages.

The curiosity manifested by our Tchuctchu friend Yandenkow and his companions upon our approach was very amusing. As the steamer came plowing up the river, they gathered on the bank, and stood in perfect amazement watching the large red wheel revolving in the sunlight at the stern, and dashing back the white foam. They were perfectly dumbfounded. With mouths and eyes stretched to the utmost, they watched her every movement; and when, at length, she gracefully swept in to shore, the one prolonged exclamation "*Huk—ho!*" rolled from every mouth. She was most carefully scrutinized from stem to stern, and, upon landing, the whole party rushed aboard to try and discover the great power that produced such wonderful results. The furnace was peered into, the engines felt of, and even the windlass twisted about. Not being able yet to discover the cause, the whole band squeezed themselves down into the coal-hole to try and solve the mystery. It was impossible to explain it to them with our limited knowledge of Tchuctchu, and, even had we been familiar with their language, I doubt

whether they could have been made to understand. We invited them to tie their boats alongside and take a short ride down the river with us, which pleased them very much; but, upon leaving the craft, they were more perplexed than ever.

The return trip to the station was made in two days.

At Telegraph Bluff Yourt Robinson's remains were taken aboard, and afterward buried at the station by the side of Geddes, a neat head-board, with appropriate inscription, being erected to designate the spot.

The Wade made two other trips as far as Ochostika, carrying wire, brackets, and insulators. When the Fourth of July rolled around we celebrated it after the manner in which all Americans usually observe that greatest day in our nation's history. A national salute was fired from one of the ship's 12-pounders, that had been brought ashore for the purpose, and the station buildings and steamer were decked out in our country's and Company's flags and signals, presenting a very gay and holiday appearance. Mr. Farnam's forethought had also held in reserve several of the dainties with which we had been furnished before leaving Plover Bay, and at the dinner-table our tin plates were burdened with a fare that would have done justice to many another country and climate.

On the third trip of the steamer, just below Camp Macrae, we met Macrae and party with the first raft. They left Myan Station on the 26th of June with two rafts of one thousand poles each, but the water had fallen so much on the Myan that the rafts were too deep to float. They then left one of them behind, and divided the other into two smaller ones, which they brought down to deep water. After this, Mr. Macrae sent back a party under Mr. Mason to float down the other. The first raft had been divided up and the poles landed at different points along the river convenient for winter distribution with dogs.

Their supplies by this time were nearly exhausted, so they continued on to the station to await the arrival of the vessel. These poor fellows had received very harsh treatment from mosquitoes and "moskes." Some of their faces were so badly swollen that they were barely recognizable.

When we rounded Cape Large on our return trip and came

in sight of the station, we were much gratified at seeing a barque lying at anchor in the mouth of Wade River; but, as we came in full view, our delight was changed to disappointment. She flew the Company's colors; but one glance proclaimed all—our great undertaking had collapsed! Her copper sheathing was distinctly visible far above the water-line, showing the absence of cargo, nor had any thing been landed, as the beach was perfectly clear. Our surmise proved correct. The Atlantic Cable was a success, thereby obviating the necessity for telegraphic communication with the Old World *via* Behring's Strait. With this great rival in the field, nothing was to be gained by a completion of the work.

This announcement, instead of causing that joy one would expect from a band of men who had been exiled from the world and civilization for one and two years, and who had been undergoing privations and sufferings in a cause which affected them so indirectly, was received without a word of approbation. The pecuniary compensation derived from it could not be the cause of their disappointment, for, without exception, they all received outrageously small amounts for their services under the circumstances. No; the truth is, the enterprise was looked upon as a great national undertaking, and one that would do credit to any nation. To construct a telegraph line for upward of seven thousand miles through a wild and hitherto unexplored territory, among savage tribes, and that, too, for the greater portion of the way through an arctic region, where the severest cold had to be endured, together with innumerable other privations, was an enterprise which we all felt a pride in being enlisted in; and now that the walls were scaled—the greater part of the suffering gone through with, and the heaviest obstacles overcome—to see our pet project abandoned just as we were emerging upon a comparatively smooth and easy path, was by no means gratifying.

The barque anchored at the station was the *Clara Bell*, with Major Wright, the adjutant of the expedition, on board. Our instructions were to get every thing aboard as soon as possible to proceed to Plover Bay, the general rendezvous. Mr. Mason and party were yet on the *Myan*, where also much of the baggage of the men, with various other articles, had

een left. To secure these, at 4 A.M. the next morning the Wade left the station for her last trip on the Anadyr, under the command of Mr. Frost, with instructions to proceed, if possible, to Myan Station, and to hasten the passage, as the bell had to visit the American coast to gather together the parties yet remaining there.

After the intention to abandon the work was announced, the Company had sent an agent to San Francisco to settle up its affairs. Economy is very essential for the prosperity either of an individual or corporation, but when it is carried so far as to send an *empty* ship two or three thousand miles to relieve parties destitute of supplies, and to bring those parties back to civilization without carrying provisions to sustain them, it becomes outrageous. The dispatches sent *via* St. Petersburg during the winter, announcing the critical condition of our party owing to the wreck of the Gate, and urging the necessity of speedy relief in the spring, had been received, so that the authorities at home could not plead ignorance. Yet when I applied for provisions to sustain my party—our own supplies being about exhausted—I was told there were none to spare.

Fortunately, since the opening of the river, the men had caught a number of salmon, and, to provide against a possible emergency, had salted down three barrels full. Upon these, with quarter rations of bread and a very small quantity of other food, we managed to eke out an existence until after our arrival at Plover Bay, when Major Wright had to make a voyage in search of whalers to try and either beg or buy enough food to prevent the parties from starvation. Thanks to the noble generosity of Captain Redfield, of the *Manuella*, and several other whalers, he secured a sufficient quantity of provisions to place the parties beyond want.

The Wade returned to the station on the 25th. She had ascended the Myan as far as Vaccarana, above which point the water became too shoal in places for her to advance farther. At this point they met Mason and party with another raft, and, taking them aboard, immediately turned back, finding it necessary to abandon the articles left at Myan Station. These I afterward intrusted to the care of Ivan Ermechkoff (the native who had accompanied Mr. Norton and myself on

our carbass journey down the river), to be delivered up if called for by any of the Company from Ghijigha, and if not called for to be applied to his own uses.

During the absence of the Wade every thing about the station was transferred to the Bell, including spars, rigging, anchors, chains, etc., that had been saved from the wreck, and, upon her return, the loading-up was completed. When every thing was put aboard, the men nailed a painted board over the entrance of the station, giving its name, date of erection, and date of abandonment. Our "Jack-tar" neighbors, not to be outdone, soon had a similar board erected over their quarters, announcing that theirs was "The House that Jack built," with a sketch of its history.

To be impartial, and to give an idea of the object for which each building was erected to any straggler who might eventually find his way to this brink of the world, some wag in the party soon had a sign raised on a pole above the store-house, bearing the words

FARNAM'S GASH.

TO LET.

'After this three lusty cheers were given for the old spot, to which the men had become attached in spite of its dreary location, and we left the point for the last time. Before stepping into the boat, however, we gave one farewell glance to see that nothing was being left behind—but, alas! something *was* left behind. There, upon the bleak point, side by side, were two low mounds, with their white head-boards glistening in the warm sunlight. Beneath these lay poor Robinson and Geddes, who had joined our party full of bright hopes and anticipations for the future. Little did they dream that their future was so near at hand, and that their eyes would close for the last time upon this drear, dismal waste. But what care they now? Their white grave-stones may glisten in the cold, frigid rays of the winter's aurora, or glow and sparkle in the bright effulgence of the midnight sun; the fierce, howling poorga may rush madly by, tearing up the frozen snow and dashing it against their low graves, or the mild summer breezes creep gently over the tundra, to bathe them in the fragrance of wild flowers.

Fierce wolves shall dash over the spot in pursuit of their prey; the wild reindeer shall come to crop frozen lichens from their tombs; the partridge to build her nest between them; and the startled hare shall take shelter behind them; but nothing can disturb the departed in this their long, last sleep.

The steamer towed the barque out of Golden Gate Bay, and then the order was reversed, the steamer being taken in tow. She was afterward taken to pieces at Plover Bay, and the hulk given to the natives at that place.

We had a very pleasant trip, owing to the obliging nature and genial company of Captain John Norton, who commanded the *Bell*. No pains were spared either by him or his officers to make our voyage comfortable.

At Plover Bay we found Captain Libby and party from Port Clarence; and afterward Captains Ennis, Ketchum, and a dozen other old friends, who had been leading a life much like our own for the past two years in Russian America, joined us with their parties.

These gentlemen all had their exploits, adventures, and experiences to relate, and had by no means been idle. Among them was Mr. Whymper, who, it will be remembered, comprised one of the party that visited us at Camp Macrae from the steamer *Wright*, after our first winter's sojourn in the country. Mr. Whymper had devoted the past winter to traveling and sketching in Russian America.*

During our stay in Plover Bay, for shelter we erected large tents from the sails of the *Golden Gate*, which afforded ample accommodation for the party. Had it not been for the scarcity of supplies, our month and a half's sojourn would have been very pleasant; but still we experienced much pleasure in meeting old friends, and mutually recounting our experiences.

While here we made frequent visits to the vessel of Captain Redfield, which lay at the lower end of the bay. The captain, in all our visits, sustained his generous and hospitable reputation; and we were always welcomed aboard with

* A volume of Mr. Whymper's travels was issued by Harper & Brothers, New York, in the year 1869. It is entitled "Travels in Alaska and on the Yukon."

a cheerful salutation, and such friendly grasps of the hand as one is reluctant to loosen his hold of.

On one of these visits a long-desired wish was gratified—that of witnessing the capture of a whale, and seeing it disposed of after the usual method of whalers. “There she blows!” came from the look-out in the “crow’s nest,” and the next moment we saw a puff of vapor and water arise from the bay, just inside of the sand-spit.

Three boats were soon lowered, and rapidly rowed to the spot. It was a long time before the harpoon was fastened into the creature; but perseverance triumphed at length, when the huge beast reared almost entirely out of the water, and, with frantic strokes of his powerful tail, lashed the sea into a perfect foam.

Finally an opportunity presented itself, when the fatal bolt was hurled from the bomb-gun, and exploded inside of the animal. Immediately after this death ensued. The boat’s flags were planted in the carcass, and the long, tedious job of towing it to the ship’s side followed. In the mean while the ship’s carpenter was busily at work sharpening long-handled blubber spades, while some of the other hands were rigging purchases. After the carcass was brought alongside, and hooked into to prevent its sinking, the huge lower jaw was first detached by means of spades and axes, and hoisted on deck by purchases rigged overhead. The men at the windlass accompanied their heaving with songs the mean while.

The moment the jaw struck the deck, three or four men commenced at it with spades, cutting it up into blocks of fat which they call “horse pieces.” These are afterward chopped into “mince-meat” before being “tried out” in the huge caldrons on deck. The rest of the whale is then stripped of its thick blubber coating by hooking into a strip of fat at the throat and heaving at the windlass, in the mean while cutting a deep gash spirally around the carcass.

By this means the carcass rolls over slowly in the water, and the long fat strip becomes *unwound*, as it were, from the body. When the commencement of the blubber strip reaches the purchases above, a fresh hold is taken lower down with another hook, and the upper portion, being severed from the

remainder, is lowered to deck, chopped into "horse pieces," and thrown into the "blubber-room" below deck until the time of "trying out" commences. One of the most interesting portions of the process was hoisting aboard the tongue—a huge mass of quivering fat, large enough to fill up an ordinarily-sized bedroom, and so heavy that it made the brig shiver, and the mainmast bend with the weight. But the huge upper jaw, with seventeen hundred pounds of black whalebone clinging to it and hanging in heavy slabs from the gums, was the crowning scene in interest. This jaw, with the whalebone attached, when suspended to the rigging, more resembled a large black tent than any thing else, capable of enclosing twelve or fifteen men.

"There, gentlemen," said the captain, "look at that. Did you ever see any thing on shore as handsome as that? And here's something," said he, pointing to a vast accumulation of blubber heaped upon the greasy deck, "there's something that may look very dirty and worthless to you landmen, but it is gold to us. There lies the sole inducement for us whalers to abandon all the comforts and pleasures of home, and spend our lives cruising about these out-of-the-way seas, crunched up in little six-by-ten cabins, and undergoing sometimes no trifling hardships, to say nothing of the constant risk of life. But I tell you, gentlemen, when we catch fellows like this, that will make one hundred and twenty, one hundred and fifty, and sometimes two hundred barrels of oil all in one lump, I tell you it pays us for all our trouble. You people on shore can have all your theatres, and balls, and things of that kind, but we don't want any thing better than this."

This was a rich harvest for the natives on the spit, and they availed themselves of it. A dozen baideras assembled around the carcass, each crowded with men, women, and children, all armed with knives, ready for the onslaught. As fast as the fat was stripped off they attacked the exposed lean meat, cutting out large chunks, and casting them into their boats for future use.

I think I never before saw such a ravenous set of creatures; the same number of famished dogs could not have been more so. Each creature, before commencing to work,

supplied himself or herself with a long strip of the raw meat, reeking in fresh, warm blood, and, putting one end in his mouth, commenced the work of mastication, at the same time cutting and tearing from the carcass as much as he could seize hold of for loading his boat. In a few minutes they were all dripping with blood from head to foot.

All this time we had been waiting for the arrival of Colonel Bulkley with the Nightingale, he having gone from San Francisco by the way of Japan. The long and unexpected delay occasioned some anxiety for him and his vessel, but on the 6th of September we were relieved by his arrival. This was the signal for us to get ready for the homeward voyage, and ere long we were gliding under full canvas through the waters of Behring Sea, bound once more for the world and civilization. These we again reached after a short, joyous, and prosperous voyage of twenty-two days.

METEOROLOGICAL TABLES

FOR THE MONTHS OF

OCTOBER, NOVEMBER, DECEMBER, JANUARY, FEBRUARY,
MARCH, APRIL, MAY, AND JUNE,
1866 AND 1867;

TAKEN AT

BUSH'S STATION, GOLDEN GATE BAY, NEAR THE MOUTH
OF THE ANADYR RIVER, NORTHEASTERN SIBERIA,
LATITUDE $64^{\circ} 55' N.$, LONGITUDE $177^{\circ} 19' E.$,

BY

W. D. DIXON,

HOSPITAL STEWARD OF THE STATION.



Meteorological Table for the Month of October, 1866, Bush's Station, Anadyr River, N. E. Siberia.

Date. Oct., 1866.	Thermometer.			Barometer.			Weather.		Wind.			
	5 A.M.		M.	5 P.M.		M.	5 P.M.		Direction.		Force.	
				5 A.M.	M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
1												
2												
3												
4	+9	+17	+15	30.50	30.56	30.99						
5	+12	+19	+14	30.92	30.10	30.08						
6	+13	+19	+18	30.98	30.05	30.01						
7	+16	+22	+14	30.98	30.01	29.98						
8	+6	+14	+10	30.00	30.01	29.98						
9	+9	+17	+10	30.00	30.01	29.98						
10	+18	+24	+23	29.95	29.91	29.90						
11	+24	+30	+23	29.84	29.83	29.86						
12	+25	+21	+16	29.89	29.96	30.02						
13	+15	+18	+20	30.06	30.08	30.06						
14	+19	+26	+26	29.90	29.82	29.74						
15	+20	+26	+27	29.60	29.56	29.49						
16	+31	+34	+28	29.48	29.53	29.59						
17	+10	+23	+15	29.69	29.62	29.68						
18	+18	+23	+25	29.71	29.68	29.59						
19	+9	+14	+5	29.49	29.55	29.64						
20	+2	+9	+12	29.80	29.89	29.90						
21	+10	+32	+34	29.56	29.54	29.49						
22	+12	+11	+7	29.62	29.79	29.76						
23	0	+2	-4	29.74	29.79	29.87	Snowy.		S.E.	Gale.	Strong breeze.	
24	+4	+2	0	29.91	30.02	30.04	Clear.		W.	Strong breeze.	Gale.	
25	+4	+2	0	30.04	30.12	30.14	Clear.		W.	Strong breeze.	Gale.	
26	+6	0	-11	30.13	30.14	30.10	Clear.		Calin.	Strong breeze.	Gale.	
27	+10	+4	-4	30.00	29.98	29.96	Clear.		Calin.	Strong breeze.	Gale.	
28	+30	+30	+32	29.75	29.60	29.55	Cloudy.		E.	Light breeze.	Light breeze.	
29	+3	+2	0	29.82	29.98	29.96	Clear.		S.E.	Light breeze.	Light breeze.	
30	+32	+34	+32	29.40	29.05	29.09	Cloudy.		W.	Light breeze.	Light breeze.	
31	+29	+18	+15	29.21	29.15	29.13	Snowy.		S.E.	Light breeze.	Light breeze.	

Meteorological Table for the Month of November, 1866, Bush's Station, Anadyr River, N. E. Siberia.

Maximum Temperature, +28°. Minimum Temperature, -30°. Mean Temperature for November, -7° 64.

Date, Nov. 1866.	Thermometer.			Barometer.			Weather.		Wind.		
	6 A.M.	M.	8 P.M.	6 A.M.	M.	8 P.M.	A.M.	P.M.	A.M.	P.M.	P.M.
1	+10	+10	+8	29.28	29.47	29.60	Snow.	Clear.	W.	W.	Strong breeze.
2	-14	-11	-15	29.70	29.85	29.97	Clear.	Clear.	W.	W.	Light breeze.
3	-24	-20	-12	30.07	30.08	30.02	Clear.	Snow.	N.	N.	Light breeze.
4	+4	+14	+10	29.77	29.92	29.96	Snow.	Snow.	S.E.	N.W.	Strong breeze.
5	+2	+4	0	29.95	29.87	29.84	Snow.	Clear.	N.W.	W.	Strong breeze.
6	-4	-8	-16	29.80	29.82	29.86	Clear.	Clear.	W.	N.W.	Strong breeze.
7	-18	-16	-20	29.78	29.88	29.92	Clear.	Clear.	N.W.	N.W.	Strong breeze.
8	-27	-23	-30	29.94	30.00	30.06	Clear.	Clear.	N.W.	N.W.	Strong breeze.
9	-14	-17	-16	29.93	30.00	29.95	Clear.	Clear.	N.W.	N.W.	Light breeze.
10	0	+6	+4	29.85	29.84	29.83	Cloudy.	Cloudy.	E.	E.	Strong breeze.
11	0	0	-6	29.87	30.04	30.04	Clear.	Clear.	E.	W.	Light breeze.
12	-14	-6	-6	29.90	29.99	29.92	Clear.	Clear.	W.	W.	Light breeze.
13	-19	-9	-12	29.84	29.89	29.94	Clear.	Clear.	W.	W.	Light breeze.
14	-18	-20	-26	29.80	29.86	29.80	Clear.	Clear.	W.	W.	Strong breeze.
15	-30	-24	-20	29.58	29.64	29.62	Clear.	Clear.	W.	W.	Strong breeze.
16	-22	-22	-25	29.56	29.61	29.64	Clear.	Clear.	W.	W.	Strong breeze.
17	-26	-16	-22	29.50	29.61	29.62	Cloudy.	Clear.	W.	W.	Light breeze.
18	-28	-28	-29	29.68	29.68	29.68	Clear.	Clear.	N.W.	N.W.	Light breeze.
19	+2	+8	+8	29.37	29.27	29.20	Cloudy.	Cloudy.	N.E.	N.E.	Gale.
20	+25	+28	+28	29.36	29.46	29.49	Clear.	Clear.	E.	E.	Strong breeze.
21	+26	+26	+10	29.47	29.73	29.90	Cloudy.	Snow.	E.	E.	Strong breeze.
22	+6	+6	-4	30.20	30.12	30.20	Cloudy.	Cloudy.	E.	E.	Strong breeze.
23	+2	-4	-8	30.11	30.29	30.30	Cloudy.	Cloudy.	E.	E.	Light breeze.
24	-8	-8	-12	30.30	30.30	30.28	Clear.	Clear.	N.	N.	Light breeze.
25	-18	-11	-12	30.11	30.10	29.82	Clear.	Clear.	N.W.	N.	Light breeze.
26	-2	-2	-12	29.71	29.84	29.90	Clear.	Clear.	N.	N.	Light breeze.
27	-4	-6	-6	29.92	30.04	30.06	Cloudy.	Cloudy.	N.W.	N.W.	Light breeze.
28	-2	+2	-4	29.95	30.04	30.04	Cloudy.	Clear.	E.	E.	Strong breeze.
29	-14	-14	-14	30.00	30.10	30.14	Clear.	Clear.	N.	N.	Light breeze.
30	-12	-11	-23	30.00	30.04	29.98	Cloudy.	Clear.	N.W.	N.W.	Light breeze.

Meteorological Table for the Month of December, 1886, Bush's Station, Anadyr River, N. E. Siberia.

Maximum Temperature, $+10^{\circ}$. Minimum Temperature, -54° . Mean Temperature for December, $-20^{\circ}.15$.

Date, Dec., 1886.	Thermometer.				Barometer.		Weather.		Direction.		Wind.		Force.
	6 A.M.	M.	3 P.M.	9 P.M.	6 A.M.	M.	9 P.M.	3 P.M.	A.M.	P.M.	A.M.	P.M.	
1	-28	-18	-24	30.00	29.90	29.96	30.00	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
2	-20	-21	-20	30.00	29.79	29.92	30.00	Clear.	W.	W.	Strong breeze.	Strong breeze.	Strong breeze.
3	-30	-20	-23	30.04	30.04	30.06	30.06	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
4	-37	-34	-37	30.05	30.12	30.16	30.16	Clear.	N.W.	N.W.	Calm.	Calm.	Calm.
5	-38	-34	-37	30.06	30.11	30.06	30.06	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
6	-22	-17	-19	30.06	30.11	30.06	30.06	Overcast.	N.W.	N.W.	Calm.	Calm.	Calm.
7	-13	-13	-14	30.00	30.11	30.08	30.08	Cloudy.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
8	-12	-12	-11	30.13	30.16	30.11	30.11	Cloudy.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
9	-18	-24	-22	30.00	30.13	30.08	30.08	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
10	-24	-25	-29	30.05	30.02	29.97	29.97	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
11	-30	-24	-28	29.83	29.89	29.88	29.88	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
12	-24	-22	-21	29.82	29.96	29.89	29.89	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
13	-30	-21	-24	29.76	29.86	29.84	29.84	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
14	-26	-24	-24	29.76	29.88	29.97	29.97	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
15	-4	+3	+5	29.96	30.04	30.04	30.04	Cloudy.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
16	+3	+5	+6	29.96	30.00	29.88	29.88	Snow.	E.	E.	Light breeze.	Light breeze.	Light breeze.
17	+1	+12	+2	29.69	29.69	29.60	29.60	Overcast.	E.	E.	Strong breeze.	Strong breeze.	Strong breeze.
18	+4	+4	+6	29.46	29.48	29.50	29.50	Snow.	E.	E.	Light breeze.	Light breeze.	Light breeze.
19	+4	+10	+10	29.36	29.48	29.48	29.48	Snow.	E.	E.	Strong breeze.	Strong breeze.	Strong breeze.
20	+6	+4	+6	29.48	29.68	29.79	29.79	Overcast.	E.	E.	Light breeze.	Light breeze.	Light breeze.
21	-10	-10	-16	29.76	29.86	30.05	30.05	Clear.	E.	E.	Whole gale.	Whole gale.	Whole gale.
22	-28	-32	-34	30.05	30.19	30.15	30.15	Clear.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
23	-32	-34	-35	29.94	29.94	29.97	29.97	Clear.	W.	W.	Light breeze.	Light breeze.	Light breeze.
24	-26	-29	-24	29.94	30.05	30.10	30.10	Clear.	W.	W.	Light breeze.	Light breeze.	Light breeze.
25	-34	-41	-36	29.98	30.02	29.93	29.93	Clear.	W.	W.	Strong breeze.	Strong breeze.	Strong breeze.
26	-30	-36	-32	29.66	29.66	29.62	29.62	Cloudy.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
27	-20	-22	-33	29.65	29.83	29.90	29.90	Cloudy.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
28	-38	-33	-34	29.82	29.88	29.83	29.83	Cloudy.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
29	-38	-42	-44	29.75	29.88	29.98	29.98	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
30	-42	-46	-47	30.00	30.03	30.10	30.10	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
31	-42	-52	-54	30.00	30.07	30.13	30.13	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.

Meteorological Table for the Month of January, 1867, Bush's Station, Anadyr River, N. E. Siberia.

Maximum Temperature, +20°. Minimum Temperature, -50°. Mean Temperature for January, -10°.5.

Date.	Thermometer.			Barometer.		Weather.		Direction.		Wind.		Force.
	8 A.M.	M.	8 P.M.	8 A.M.	M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
1	-50	-23	-10	30.14	30.17	Cloudy.	Cloudy.	N.W.	E.	Light breeze.	Strong breeze.	
2	-2	+4	+8	30.70	29.80	Snow.	Cloudy.	E.	N.E.	Gale.	Gale.	
3	+10	+10	+8	29.68	29.79	Overcast.	Overcast.	E.	E.	Gale.	Gale.	
4	+2	+2	+2	29.39	29.41	Overcast.	Overcast.	N.E.	N.E.	Strong breeze.	Strong breeze.	
5	-12	-18	-15	29.32	29.45	Clear.	Clear.	N.E.	N.E.	Light breeze.	Light breeze.	
6	-26	-30	-26	29.95	29.96	Cloudy.	Cloudy.	S.E.	N.E.	Strong breeze.	Strong breeze.	
7	-20	-18	-20	29.97	29.74	Cloudy.	Cloudy.	S.E.	S.E.	Strong breeze.	Strong breeze.	
8	-18	-10	-13	29.99	30.05	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	
9	-14	-22	-26	30.01	30.04	Cloudy.	Cloudy.	E.S.E.	E.S.E.	Gale.	Whole gale.	
10	-16	-10	-8	30.01	30.31	Cloudy.	Cloudy.	E.S.E.	E.S.E.	Gale.	Gale.	
11	-12	+6	+6	30.00	30.25	Cloudy.	Cloudy.	E.S.E.	N.W.	Light breeze.	Light breeze.	
12	+8	+6	+4	30.00	30.71	Clear.	Clear.	S.E.	N.W.	Light breeze.	Light breeze.	
13	+3	0	-9	30.10	30.76	Foggy.	Foggy.	Cal.	Cal.	Cal.	Cal.	
14	-18	-17	-19	30.79	30.80	Foggy.	Clear.	Cal.	Cal.	Cal.	Cal.	
15	-18	-20	-24	30.60	30.59	Foggy.	Clear.	W.	Cal.	Light breeze.	Light breeze.	
16	-25	-28	-26	30.47	30.47	Clear.	Clear.	Cal.	S.W.	Cal.	Cal.	
17	-30	-22	-30	30.34	30.25	Clear.	Clear.	Cal.	Cal.	Cal.	Cal.	
18	-30	-22	-23	30.17	30.16	Clear.	Clear.	S.	Cal.	Light breeze.	Cal.	
19	-20	-19	-18	29.79	29.69	Clear.	Overcast.	Cal.	S.E.	Cal.	Strong breeze.	
20	+2	-4	-4	29.09	29.78	Cloudy.	Clear.	W.	S.E.	Light breeze.	Light breeze.	
21	+18	-14	-24	29.88	29.98	Cloudy.	Clear.	S.W.	W.	Light breeze.	Light breeze.	
22	-9	+24	+22	30.18	30.08	Cloudy.	Cloudy.	S.E.	S.E.	Strong breeze.	Gale.	
23	+22	+22	+23	30.04	30.18	Cloudy.	Cloudy.	S.E.	S.E.	Light breeze.	Light breeze.	
24	+22	+26	+19	30.56	30.50	Overcast.	Snow.	S.E.	S.E.	Strong breeze.	Strong breeze.	
25	+10	+10	+16	30.58	30.58	Clear.	Clear.	S.E.	S.E.	Light breeze.	Light breeze.	
26	-2	-4	-4	30.46	30.54	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	
27	-13	-13	-15	30.36	30.34	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	
28	-20	-12	-24	30.10	30.60	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	
29	-30	-27	-22	29.74	29.80	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	
30	-58	-18	-13	29.46	30.60	Clear.	Clear.	N.W.	S.E.	Light breeze.	Light breeze.	
31	-52	-24	-23	30.18	30.80	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	

Meteorological Table for the Month of February, 1867, Bush's Station, Anadyr River, N. E. Siberia.
Maximum Temperature, +31°. Minimum Temperature, -62°. Mean Temperature for February, -27°.833.

Date.	Thermometer.				Barometer.			Weather.		Direction.			Wind.		Force.
	6 A.M.		M.		6 A.M.		M.		P.M.	A.M.	P.M.	A.M.	P.M.		
	°	'	°	'	°	'	°	'							
Feb., 1867.															
1	-40	-34	-38	-30	30.18	30.20	30.20	30.42	Clear.	Clear.	N.W.	N.W.	Light breeze.	Calm.	Light breeze.
2	-38	-32	-30	-23	30.16	30.35	30.40	30.52	Clear.	Clear.	W.	W.	Light breeze.	Light breeze.	Light breeze.
3	-44	-32	-46	-30	30.35	30.40	30.48	30.46	Clear.	Clear.	N.W.	N.W.	Very lht breeze.	Light breeze.	Light breeze.
4	-46	-44	-40	-30	30.42	30.48	30.45	30.46	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
5	-42	-42	-48	-30	30.53	30.50	30.50	30.50	Misty.	Misty.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
6	-48	-43	-47	-30	30.34	30.40	30.54	30.54	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
7	-46	-40	-46	-30	30.16	30.25	30.30	30.30	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
8	-50	-44	-48	-30	30.16	30.22	30.29	30.29	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
9	-48	-44	-48	-30	30.20	30.33	30.29	30.29	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
10	-52	-46	-50	-30	30.02	30.09	29.90	29.90	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
11	-53	-46	-52	-29	29.70	29.71	29.53	29.53	Foggy.	Foggy.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
12	-62	-50	-58	-30	29.56	30.04	30.30	30.30	Clear.	Clear.	S.E.	N.W.	Light breeze.	Light breeze.	Light breeze.
13	-50	-38	-48	-30	30.11	30.22	30.30	30.30	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
14	-54	-43	-38	-30	30.27	30.32	30.30	30.30	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
15	-28	-14	-27	-30	30.30	30.15	30.15	30.19	Overcast.	Overcast.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
16	-32	-30	-23	-30	30.15	30.20	30.30	30.30	Overcast.	Overcast.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
17	-36	-34	-34	-30	30.20	30.04	30.16	30.16	Clear.	Clear.	E.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
18	-36	-32	-32	-30	30.30	30.44	30.12	30.12	Drifting snow.	Drifting snow.	S.E.	S.E.	Whole gale.	Whole gale.	Whole gale.
19	-20	-20	-18	-20	29.70	29.56	29.42	29.42	Drifting snow.	Drifting snow.	S.E.	S.E.	Whole gale.	Whole gale.	Whole gale.
20	+12	+16	+24	-24	29.42	29.54	29.32	29.32	Drifting snow.	Drifting snow.	S.E.	S.E.	Whole gale.	Whole gale.	Whole gale.
21	+28	+12	+4	-24	29.54	29.64	29.34	29.34	Drifting snow.	Drifting snow.	S.E.	W.	Whole gale.	Whole gale.	Whole gale.
22	+14	-14	-24	-32	29.66	29.88	29.58	29.58	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
23	-32	-34	-32	-14	30.20	30.05	30.30	30.30	Clear.	Clear.	S.	S.	Light breeze.	Light breeze.	Light breeze.
24	-34	-34	-24	-24	30.20	30.25	30.54	30.54	Clear.	Clear.	Calm.	Calm.	Light breeze.	Light breeze.	Light breeze.
25	-28	-20	-28	-4	30.50	30.53	31.66	31.66	Clear.	Clear.	N.W.	N.W.	Very lht breeze.	Light breeze.	Light breeze.
26	-16	-4	+4	+30	30.42	30.54	30.30	30.30	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.	Light breeze.
27	+18	+30	+30	+31	29.76	29.65	29.50	29.50	Snow.	Snow.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
28					29.46	29.54	29.54	29.54	Clear.	Clear.	S.E.	S.E.	Light breeze.	Light breeze.	Light breeze.

Meteorological Table for the Month of March, 1867, Bush's Station, Anadyr River, N. E. Siberia.

Maximum Temperature, +33°. Minimum Temperature, -50° Mean Temperature for March, -1° 70.

Date.	Thermometer.				Barometer.			Weather.		Wind.		
	6 A.M.	9 A.M.	12 M.	3 P.M.	6 A.M.	9 A.M.	12 M.	3 P.M.	6 P.M.	Direction.	A.M.	P.M.
1	+28	+32	+12	29.84	29.60	29.62	29.84	Snow.	Clear.	W.	Light breeze.	Light breeze.
2	+8	+4	-10	30.12	30.30	30.30	30.92	Clear.	Drifting snow.	S.E.	Very light breeze.	Strong breeze.
3	+26	+32	-28	29.81	29.73	29.57	29.57	Drifting snow.	Clear.	S.E.	Gale.	Gale.
4	+6	+22	+8	29.76	29.86	29.86	30.11	Clear.	Clear.	S.	Strong breeze.	Strong breeze.
5	+12	+30	+26	30.05	29.92	29.80	29.80	Drifting snow.	Overcast.	S.E.	Strong breeze.	Strong breeze.
6	+28	+21	+16	29.73	29.68	29.63	29.84	Clear.	Overcast.	S.E.	Light breeze.	Very light breeze.
7	+17	+23	+22	29.73	29.68	29.63	29.84	Overcast.	Overcast.	S.E.	Strong breeze.	Light breeze.
8	+26	+33	+30	29.48	29.32	29.24	29.24	Snow.	Snow.	S.E.	Strong breeze.	Strong breeze.
9	+11	+25	-6	29.44	29.79	30.00	30.00	Snow.	Clear.	N.W.	Very light breeze.	Light breeze.
10	-2	+1	+8	29.68	29.90	29.74	29.74	Overcast.	Drifting snow.	N.W.	Strong breeze.	Gale.
11	+8	+10	+8	29.78	29.42	29.43	29.43	Drifting snow.	Drifting snow.	E.	Whole gale.	Whole gale.
12	+14	+30	+20	29.34	29.49	29.40	29.40	Overcast.	Snow.	S.E.	Light breeze.	Light breeze.
13	+16	+29	+10	29.80	29.94	29.88	29.88	Clear.	Clear.	S.E.	Light breeze.	Light breeze.
14	+19	+30	+30	30.10	30.11	30.15	30.15	Overcast.	Overcast.	E.	Light breeze.	Light breeze.
15	+10	+20	+8	30.12	30.18	30.24	30.24	Overcast.	Clear.	N.W.	Light breeze.	Light breeze.
16	+2	+2	-13	30.19	30.28	30.21	30.21	Clear.	Clear.	N.W.	Light breeze.	Light breeze.
17	-14	+6	+4	30.08	30.08	30.00	30.00	Foggy.	Clear.	S.E.	Light breeze.	Light breeze.
18	+5	+14	+8	29.90	29.92	29.90	29.94	Overcast.	Overcast.	S.E.	Light breeze.	Light breeze.
19	+8	+23	+8	29.86	29.90	29.94	29.94	Overcast.	Overcast.	N.W.	Light breeze.	Light breeze.
20	-14	-18	-14	30.00	30.14	30.26	30.26	Clear.	Clear.	N.W.	Light breeze.	Light breeze.
21	-28	-18	-28	30.06	30.30	30.50	30.50	Foggy.	Clear.	N.W.	Strong breeze.	Strong breeze.
22	-20	-4	-20	30.40	30.40	30.40	30.40	Overcast.	Clear.	N.W.	Light breeze.	Light breeze.
23	-30	-13	-26	30.28	30.34	30.32	30.32	Overcast.	Clear.	N.W.	Light breeze.	Light breeze.
24	-33	-21	-32	30.15	30.18	30.12	30.12	Clear.	Clear.	N.W.	Light breeze.	Light breeze.
25	-42	-23	-34	30.01	30.00	29.83	29.83	Clear.	Clear.	N.W.	Light breeze.	Light breeze.
26	-22	-14	-26	29.56	29.62	29.58	29.58	Clear.	Clear.	N.W.	Strong breeze.	Strong breeze.
27	-36	-26	-34	29.52	29.64	29.61	29.61	Clear.	Drifting snow.	W.	Strong breeze.	Strong breeze.
28	-36	-23	-34	29.55	29.65	29.60	29.60	Clear.	Clear.	W.	Strong breeze.	Strong breeze.
29	-34	-24	-35	29.35	29.44	29.45	29.45	Clear.	Clear.	W.	Strong breeze.	Strong breeze.
30	-46	-23	-41	29.55	29.55	29.57	29.57	Clear.	Clear.	N.E.	Light breeze.	Light breeze.
31	-50	-34	-46	29.64	29.62	29.70	29.70	Clear.	Clear.	N.W.	Light breeze.	Light breeze.

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Meteorological Table for the Month of April, 1867, Bush's Station, Anadyr River, N. E. Siberia.
Maximum Temperature, +54°. Minimum Temperature, -40°. Mean Temperature for April, +5°. 24

Date.	Thermometer.				Barometer.		Weather.		Direction.		Wind.	
	8 A.M.	M.	4 P.M.	8 P.M.	6 A.M.	M.	8 P.M.	A.M.	P.M.	A.M.	P.M.	P.M.
1	40	-20	-24	29.52	29.58	29.52	Overcast.	Overcast.	N.E.	N.W.	Strong breeze.	Strong breeze.
2	24	-10	-6	29.52	29.70	29.62	Overcast.	Overcast.	N.W.	N.W.	Strong breeze.	Very light breeze.
3	24	-6	-8	29.50	29.92	29.93	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Very light breeze.
4	14	+2	-18	29.92	29.98	29.98	Clear.	Clear.	N.W.	N.W.	Very light breeze.	Strong breeze.
5	26	-12	-18	29.90	29.94	29.92	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Light breeze.
6	30	-14	-26	29.78	29.54	29.84	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Light breeze.
7	34	-20	-28	29.76	29.53	29.73	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.
8	34	-12	-28	29.69	29.76	29.78	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.
9	36	-18	-24	29.80	29.90	29.90	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.
10	34	-14	-18	29.84	29.92	29.88	Clear.	Clear.	N.W.	N.W.	Gale.	Strong breeze.
11	18	-10	-18	29.70	29.79	29.78	Drifting snow.	Drifting snow.	W.	W.	Strong breeze.	Strong breeze.
12	20	-10	-18	29.72	29.86	29.84	Clear.	Clear.	N.W.	W.	Calm.	Strong breeze.
13	28	-8	-16	29.76	29.86	29.76	Clear.	Clear.	S.E.	S.E.	Light breeze.	Light breeze.
14	22	-2	-12	29.60	30.04	29.96	Snow.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.
15	+6	+3	-5	29.62	29.82	29.98	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.
16	+10	+3	-1	30.16	30.35	30.42	Overcast.	Overcast.	E.	E.	Strong breeze.	Strong breeze.
17	+8	-19	-12	30.32	30.28	30.12	Overcast.	Overcast.	W.	W.	Light breeze.	Light breeze.
18	+14	-29	-15	30.05	30.18	30.22	Overcast.	Overcast.	E.	E.	Gale.	Light breeze.
19	+18	-31	-23	30.18	30.15	30.19	Drifting snow.	Drifting snow.	E.	S.	Strong breeze.	Very light breeze.
20	+24	-35	-20	30.24	30.23	30.28	Overcast.	Overcast.	E.	E.	Strong breeze.	Light breeze.
21	+23	-32	-24	30.26	30.30	30.29	Overcast.	Overcast.	S.E.	S.E.	Light breeze.	Calm.
22	+29	-48	-28	30.10	30.10	30.13	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.
23	+31	-38	-24	29.98	29.86	29.90	Cloudy.	Clear.	E.	E.	Strong breeze.	Strong breeze.
24	+21	-37	-33	30.05	30.05	30.04	Clear.	Clear.	S.E.	S.E.	Light breeze.	Light breeze.
25	+21	-49	-36	29.98	29.96	29.90	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.
26	+30	-44	-32	29.80	29.77	29.82	Overcast.	Overcast.	S.E.	S.E.	Light breeze.	Light breeze.
27	+35	-46	-31	29.52	29.33	30.00	Snow.	Snow.	S.E.	S.E.	Light breeze.	Light breeze.
28	+28	-54	-32	30.11	30.15	30.16	Overcast.	Overcast.	N.	S.	Very light breeze.	Very light breeze.
29	+34	-52	-27	30.23	30.20	30.10	Overcast.	Overcast.	S.	S.	Very light breeze.	Light breeze.
30	+22	-37	-30	29.96	29.94	29.92	Overcast.	Clear.	S.	S.	Light breeze.	Light breeze.

Meteorological Table for the Month of May, 1867, Bush's Station, Anadyr River, N. E. Siberia.
Maximum Temperature, $+59^{\circ}$. Minimum Temperature, $+11^{\circ}$. Mean Temperature for May, $+33^{\circ}$ 75.

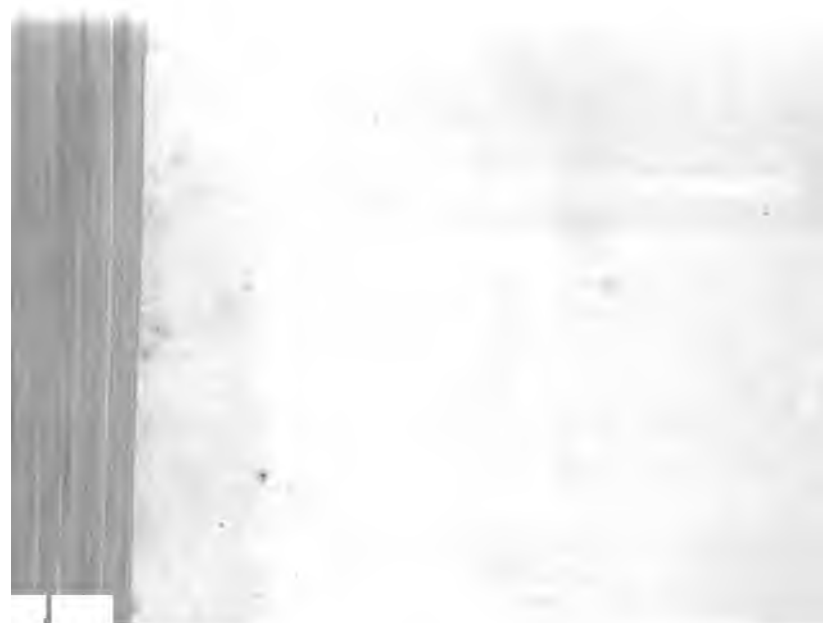
Date.	Thermometer.			Barometer.			Weather.		Direction.		Wind.	
	6 A.M.	M.	8 P.M.	6 A.M.	M.	8 P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
1	+14	+37	+51	29.88	29.88	29.86	Clear.	Overcast.	S.	S.E.	Light breeze.	Light breeze.
2	-30	-38	-27	29.92	30.02	30.05	Clear.	Clear.	S.	S.E.	Light breeze.	Light breeze.
3	-24	-36	-30	30.07	30.13	30.10	Clear.	Overcast.	S.	S.	Very light breeze.	Very light breeze.
4	-33	-55	-33	30.05	30.06	30.00	Overcast.	Overcast.	S.E.	S.E.	Light breeze.	Light breeze.
5	-34	-42	-34	29.89	29.90	29.89	Rain.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.
6	-33	-38	-31	29.82	29.77	29.68	Snow.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.
7	-38	-59	-34	29.51	29.45	29.37	Snow.	Overcast.	N.	N.	Very light breeze.	Calm.
8	-38	-48	-38	29.35	29.46	29.60	Overcast.	Overcast.	S.	E.	Strong breeze.	Strong breeze.
9	-28	-36	-31	29.87	29.83	29.83	Overcast.	Overcast.	N.	W.	Light breeze.	Light breeze.
10	-27	-41	-29	29.82	29.87	29.83	Snow.	Overcast.	W.	S.	Light breeze.	Light breeze.
11	-30	-36	-28	29.76	29.79	29.72	Snow.	Overcast.	W.	S.	Light breeze.	Light breeze.
12	-22	-30	-26	29.67	29.74	29.75	Clear.	Overcast.	N.	N.W.	Light breeze.	Light breeze.
13	-24	-29	-27	29.86	29.94	30.00	Overcast.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.
14	-11	-24	-24	30.01	30.04	30.03	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.
15	-11	-31	-28	30.03	30.10	30.13	Clear.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.
16	-11	-33	-30	30.12	30.11	30.01	Clear.	Overcast.	N.W.	N.W.	Strong breeze.	Strong breeze.
17	-15	-31	-33	29.87	29.89	29.88	Clear.	Cloudy.	N.W.	N.W.	Light breeze.	Light breeze.
18	-30	-47	-33	29.83	29.89	29.84	Overcast.	Rain.	N.W.	N.W.	Strong breeze.	Strong breeze.
19	-33	-54	-34	29.75	29.67	29.58	Snow.	Rain.	N.W.	N.W.	Light breeze.	Light breeze.
20	-33	-48	-35	29.82	29.63	29.75	Snow.	Rain.	N.W.	N.W.	Light breeze.	Light breeze.
21	-35	-47	-37	29.97	30.09	30.11	Clear.	Clear.	W.	S.	Very light breeze.	Light breeze.
22	-33	-43	-39	30.10	30.16	30.17	Overcast.	Overcast.	S.E.	S.W.	Light breeze.	Very light breeze.
23	-33	-46	-38	30.15	30.12	30.12	Overcast.	Overcast.	N.W.	N.W.	Light breeze.	Light breeze.
24	-32	-37	-39	30.07	30.12	30.10	Overcast.	Clear.	N.W.	N.W.	Light breeze.	Light breeze.
25	-31	-41	-40	30.07	30.12	30.10	Clear.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.
26	-30	-43	-38	30.05	30.06	29.94	Clear.	Rain.	N.W.	N.W.	Very light breeze.	Strong breeze.
27	-34	-45	-35	29.82	29.83	29.92	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.
28	-29	-39	-37	30.03	30.08	30.00	Clear.	Rain.	S.E.	S.	Very light breeze.	Very light breeze.
29	-28	-40	-31	29.93	29.96	29.87	Overcast.	Overcast.	S.E.	S.	Very light breeze.	Very light breeze.
30	-29	-48	-31	29.84	29.80	29.75	Overcast.	Cloudy.	S.	S.	Very light breeze.	Very light breeze.
31	+35	+49	+37	29.76	29.79	29.75	Cloudy.	Cloudy.	W.	W.	Light breeze.	Light breeze.

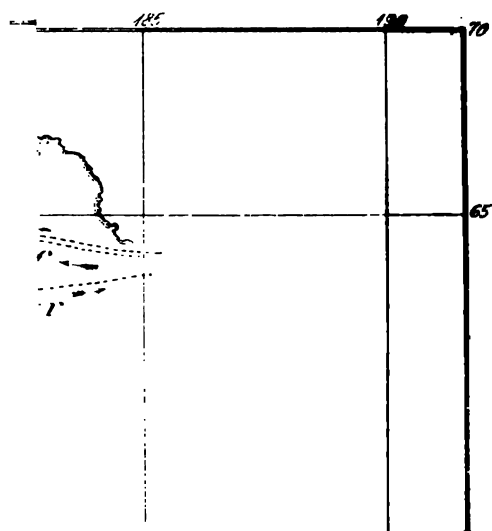
METEOROLOGICAL TABLES.

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Maximum Temperature, +70°. Minimum Temperature, +34°. Mean Temperature for May, +48°. &

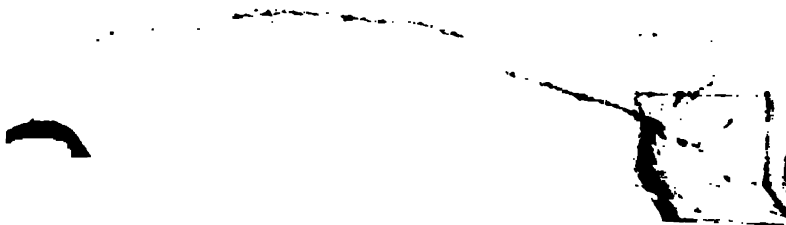
Date, June, 1867.	Thermometer.				Barometer.				Weather.		Direction.		Wind.		Force.
	6 A.M.	M.	3 P.M.	8 P.M.	6 A.M.	M.	3 P.M.	8 P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
1	+36	+43	+42	+39	29.76	29.80	29.80	29.80	Overcast.	Overcast.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
2	+36	+41	+42	+36	29.80	29.87	29.87	29.87	Overcast.	Overcast.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
3	+36	+42	+42	+36	29.86	29.94	29.94	29.94	Cloudy.	Cloudy.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
4	+34	+45	+45	+35	29.95	30.03	30.04	30.04	Cloudy.	Cloudy.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
5	+35	+39	+35	+35	30.05	30.09	30.06	30.06	Snow.	Cloudy.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
6	+34	+41	+38	+38	30.00	29.99	29.94	29.94	Cloudy.	Cloudy.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
7	+35	+46	+45	+45	29.89	29.93	29.96	29.96	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
8	+40	+57	+41	+39	29.97	30.03	29.92	29.92	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
9	+44	+43	+39	+39	29.85	29.82	29.74	29.74	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
10	+36	+45	+39	+39	29.72	29.72	29.66	29.66	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
11	+37	+45	+36	+36	29.64	29.64	29.60	29.60	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
12	+37	+49	+39	+39	29.57	29.65	29.65	29.65	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
13	+36	+47	+39	+39	29.63	29.70	29.73	29.73	Rain.	Rain.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
14	+36	+48	+49	+49	29.74	29.83	29.90	29.90	Rain.	Rain.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
15	+37	+47	+36	+36	29.95	29.95	30.01	30.01	Rain.	Rain.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
16	+36	+44	+37	+37	30.02	30.09	30.10	30.10	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
17	+41	+48	+40	+40	30.11	30.16	30.11	30.11	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
18	+41	+55	+52	+52	30.09	30.14	30.11	30.11	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
19	+39	+44	+42	+42	30.07	30.09	30.04	30.04	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
20	+41	+49	+40	+40	30.04	30.03	30.00	30.00	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
21	+41	+55	+41	+41	30.00	30.02	29.98	29.98	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
22	+43	+52	+48	+48	29.95	29.95	29.87	29.87	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
23	+44	+43	+41	+41	29.72	29.71	29.59	29.59	Clear.	Clear.	S.	S.	Strong breeze.	Strong breeze.	Strong breeze.
24	+39	+45	+39	+39	29.67	29.74	29.82	29.82	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
25	+39	+43	+46	+46	29.94	30.05	30.07	30.07	Rain-showers.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
26	+43	+46	+51	+51	30.04	30.01	29.98	29.98	Overcast.	Overcast.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
27	+46	+57	+59	+59	30.00	30.00	29.98	29.98	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
28	+52	+70	+59	+59	30.00	30.08	30.00	30.00	Clear.	Clear.	N.W.	N.W.	Strong breeze.	Strong breeze.	Strong breeze.
29	+50	+65	+43	+43	29.90	29.84	29.78	29.78	Overcast.	Overcast.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.
30	+45	+65	+44	+44	29.79	29.89	29.91	29.91	Cloudy.	Cloudy.	S.E.	S.E.	Strong breeze.	Strong breeze.	Strong breeze.







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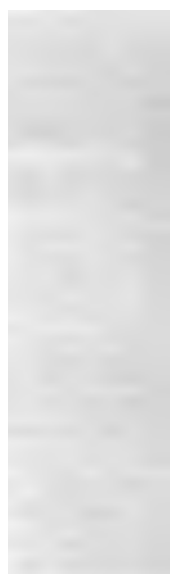
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